Authorization for Credit Card Transactions

Department of Homeland Security

Form G-1450

How To Fill Out Form G-1450

1. Type or print legibly in black ink.
2. Complete the "**Applicant's/Petitioner's/Requester's Information**," "**Credit Card Billing Information**," and "**Credit Card Information**" sections and sign the authorization. **NOTE:** The credit card must be issued by a U.S. bank.
3. Place your Form G-1450 ON TOP of your application, petition, or request package.

NOTE: Failure to provide the requested information may result in DHS and your financial institution not accepting the payment. DHS cannot process credit card payments without an authorized signature.

NOTE: Please see the USCIS Form G-1450 website for additional information.

We recommend that you print or save a copy of your completed Form G-1450 to review in the future and for your records.

By completing this transaction, you agree that you have paid for a government service and that the filing fee, biometric services fee and all related financial transactions are final and not refundable, regardless of any action DHS takes on an application, petition, or request. You must submit all fees in the exact amounts. DHS will charge your credit card up to the amount you authorize below.

Please refer to the form(s) you are filing for additional information, or you may call the USCIS Customer Contact number at **1-800-375-5283**. For TTY (deaf or hard of hearing) call: **1-800-767-1833**.

Applicant's/Petitioner's/Requester's Information (Full Legal Name)		
Given Name (First Name) Jose Evandeilton	Middle Name (if any) N/A	Family Name (Last Name) LOPES
Credit Card Billing Information (Credit Card Holder's Name as it Appears on the Card)		
Given Name (First Name)	Middle Name (if any)	Family Name (Last Name)
Credit Card Holder's Billing Address:		
Street Number and Name	Apt. Ste. Flr. ☐ ☐ ☐	Number
City or Town	State	ZIP Code
Credit Card Holder's Signature and Contact Information:		
Credit Card Holder's Signature		
Credit Card Holder's Daytime Telephone Number	Credit Card Holder's Email Address	

Credit Card Information		
Credit Card Number	**Credit Card Type:** ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover	Authorized Payment Amount $ 715.00
Credit Card Expiration Date (mm/yyyy) CVV Code		

Authorization for Credit Card Transactions

Department of Homeland Security

Form G-1450

How To Fill Out Form G-1450

1. Type or print legibly in black ink.
2. Complete the "**Applicant's/Petitioner's/Requester's Information**," "**Credit Card Billing Information**," and "**Credit Card Information**" sections and sign the authorization. **NOTE:** The credit card must be issued by a U.S. bank.
3. Place your Form G-1450 ON TOP of your application, petition, or request package.

NOTE: Failure to provide the requested information may result in DHS and your financial institution not accepting the payment. DHS cannot process credit card payments without an authorized signature.

NOTE: Please see the USCIS Form G-1450 website for additional information.

We recommend that you print or save a copy of your completed Form G-1450 to review in the future and for your records.

By completing this transaction, you agree that you have paid for a government service and that the filing fee, biometric services fee and all related financial transactions are final and not refundable, regardless of any action DHS takes on an application, petition, or request. You must submit all fees in the exact amounts. DHS will charge your credit card up to the amount you authorize below.

Please refer to the form(s) you are filing for additional information, or you may call the USCIS Customer Contact number at **1-800-375-5283**. For TTY (deaf or hard of hearing) call: **1-800-767-1833**.

Applicant's/Petitioner's/Requester's Information (Full Legal Name)		
Given Name (First Name) Jose Evandeilton	Middle Name (if any) N/A	Family Name (Last Name) LOPES
Credit Card Billing Information (Credit Card Holder's Name as it Appears on the Card)		
Given Name (First Name)	Middle Name (if any)	Family Name (Last Name)
Credit Card Holder's Billing Address:		
Street Number and Name	Apt. Ste. Flr. ☐ ☐ ☐	Number
City or Town	State	ZIP Code
Credit Card Holder's Signature and Contact Information:		
Credit Card Holder's Signature		
Credit Card Holder's Daytime Telephone Number	Credit Card Holder's Email Address	

Credit Card Information		
Credit Card Number	**Credit Card Type:** ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover	Authorized Payment Amount $ 300.00
Credit Card Expiration Date (mm/yyyy) CVV Code		

YOUSA
Law Firm

EB-2 IMMIGRANT PETITION
WITH REQUEST FOR A NATIONAL INTEREST WAIVER

Petitioner: LOPES, José Evandeilton

HS Law Corp
P.O Box 90487
San Diego - CA - United States

YOUSA Law Firm
Tel: +1 415 425-2508
contato@yousalaw.com

TABLE OF CONTENTS

Petitioner: **LOPES, José Evandeilton**
Type of Petition: **I-140, EB-2 National Interest Waiver**
Classification Sought: **Immigration and Nationality Act 203(b)(2)(B)**

Forms	• Form G-1450 in the amount of $715 towards I-140 form filling fee • Form G-1450 in the amount of $300 towards Asylum Program Fee • Form G-1145 • Form G-28 • Form I-140 • ETA-9089
Petition Cover Letter	• Summary of Cover Letter • Petition Cover Letter • Exhibit List
Exhibit A	• Resume
Exhibit B ELIGIBILITY CRITERIA	**Advanced Degree:** • Ongoing Ph.D. in Numerical Methods in Engineering - UFPR • Master of Science (M.Sc.) in Numerical Methods in Engineering – UFPR (Diploma & Transcript) • Academic Credential Evaluation (U.S. Master's in Statistics Equivalency) • Bachelor's Degree in Statistics (Diploma & Transcript) • MBA in Business Intelligence (Diploma & Transcript) • **Professional Evidence:** - STIX – Advanced Modeling for Loyalty Data (13M+ users) - Bradesco – Credit Risk & Fraud Modeling - ClearSale – Real-Time Fraud Detection Models - Boa Vista/Equifax – National Credit Bureau Risk Architecture
Exhibit C NATIONAL INTEREST WAIVER	**C.I – First Prong – Substantial Merit and National Importance:** • Business Plan for JL Data Dynamics • **Federal-Level Legal Research Supporting National Importance:** - Federal Trade Commission (FTC) – 2023 Fraud Loss Report ($10B) - National AI Initiative Act of 2020 - Federal Data Strategy - National Cybersecurity Strategy (2023) - U.S. Bureau of Labor Statistics (BLS) – Data Scientists & Statisticians - Economic Policy Institute (EPI) – Job Multipliers - NIST Guidelines – Data Governance & AI Reliability

	C.II – Second Prong – Well-Positioned to Advance the Proposed Endeavor: • All the documents of Exhibit B • **Specialized courses:** - Applied Data Science with Python – University of Michigan - Data Science Specialization – Johns Hopkins University - Tableau Desktop Specialist / Visual Analytics – Tableau/Salesforce • Other relevant technical certifications • **Licensure and Professional Credentials** - CONFE – Federal Council of Statistics – Professional Registration - ABE – Brazilian Statistical Association – Active Membership • **Letters of Support:** - Dr. Walmes Marques Zeviani - Dr. Silvia Emiko Shimakura - Dr. Paulo Justiniano Ribeiro Junior - Dr. Wagner Hugo Bona • **Proof of Financial Feasibility:** - Property Appraisal & Deed - Central Bank of Brazil (BCB) – Currency Conversion • **Proof of High Salary:** - High Salary Evidence (Tax Returns) - Salary Comparison (Indeed / Salary.com) - Central Bank of Brazil (BCB) – Currency Conversion • **Other Eligible Evidences** - About Federal University of Paraná (UFPR) – Academic Reputation - About CONFE – Federal Professional Licensing Authority - About ABE – National Academic Association in Statistics - About STIX – National-Scale Analytics Company - About GPA – Retail and Consumer Data - About RaiaDrogasil – Healthcare & Pharmacy Intelligence - About Bradesco – Major Financial Institution - About Equifax / Boa Vista – Global Credit Bureau - About ClearSale – Global Fraud Prevention Leader - About HSBC – Global Banking Leader - About Grupo Boticário – Retail & Consumer Behavior Data
Exhibit D **PERSONAL DOCUMENTS**	• Passport's Biometrics Page • Birth Certificate and Corresponding Translation • Marriage Certificate and Corresponding Translation • Derivative's Passport's Biometrics Page • Derivative's Birth Certificate and Corresponding Translation

e-Notification of Application/Petition Acceptance

Department of Homeland Security
U.S. Citizenship and Immigration Services

USCIS
Form G-1145

What Is the Purpose of This Form?

Use this form to request an electronic notification (e-Notification) when U.S. Citizenship and Immigration Services accepts your immigration application. This service is available for applications filed at a USCIS Lockbox facility.

General Information

Complete the information below and clip this form to the first page of your application package. You will receive one e-mail and/or text message for each form you are filing.

We will send the e-Notification within 24 hours after we accept your application. Domestic customers will receive an e-mail and/or text message; overseas customers will only receive an e-mail. Undeliverable e-Notifications cannot be resent.

The e-mail or text message will display your receipt number and tell you how to get updated case status information. It will not include any personal information. The e-Notification does not grant any type of status or benefit; rather it is provided as a convenience to customers.

USCIS will also mail you a receipt notice (I-797C), which you will receive within 10 days after your application has been accepted; use this notice as proof of your pending application or petition.

USCIS Privacy Act Statement

AUTHORITIES: The information requested on this form is collected pursuant to section 103(a) of the Immigration and Nationality Act, as amended INA section 101, et seq.

PURPOSE: The primary purpose for providing the information on this form is to request an electronic notification when USCIS accepts immigration form. The information you provide will be used to send you a text and/or email message.

DISCLOSURE: The information you provide is voluntary. However, failure to provide the requested information may prevent USCIS from providing you a text and/or email message receipting your immigration form.

ROUTINE USES: The information provided on this form will be used by and disclosed to DHS personnel and contractors in accordance with approved routine uses, as described in the associated published system of records notices [**DHS/USCIS-007 - Benefits Information System and DHS/USCIS-001 - Alien File (A-File) and Central Index System (CIS)**, which can be found at **www.dhs.gov/privacy**]. The information may also be made available, as appropriate for law enforcement purposes or in the interest of national security.

Complete this form and clip it on top of the first page of your immigration form(s).

Applicant/Petitioner Full Last Name	Applicant/Petitioner Full First Name	Applicant/Petitioner Full Middle Name
LOPES	**Jose Evandeilton**	**N/A**

Email Address	Mobile Phone Number (Text Message)
evandeilton@gmail.com	

Notice of Entry of Appearance as Attorney or Accredited Representative

Department of Homeland Security

DHS Form G-28
OMB No. 1615-0105
Expires 05/31/2021

Part 1. Information About Attorney or Accredited Representative

1. USCIS Online Account Number (if any)

► 0 0 7 4 9 2 6 2 5 4 3 8

Name of Attorney or Accredited Representative

2.a. Family Name (Last Name): HAVERROTH SILVA

2.b. Given Name (First Name): Otavio

2.c. Middle Name: N/A

Address of Attorney or Accredited Representative

3.a. Street Number and Name: PO Box 90487

3.b. ☐ Apt. ☐ Ste. ☐ Flr. N/A

3.c. City or Town: San Diego

3.d. State: CA **3.e.** ZIP Code: 92169

3.f. Province: N/A

3.g. Postal Code: N/A

3.h. Country: USA

Contact Information of Attorney or Accredited Representative

4. Daytime Telephone Number: 5102419336

5. Mobile Telephone Number (if any): 5102419336

6. Email Address (if any): otavio@legalhs.com

7. Fax Number (if any): N/A

Part 2. Eligibility Information for Attorney or Accredited Representative

Select **all applicable** items.

1.a. ☒ I am an attorney eligible to practice law in, and a member in good standing of, the bar of the highest courts of the following states, possessions, territories, commonwealths, or the District of Columbia. If you need extra space to complete this section, use the space provided in **Part 6. Additional Information**.

Licensing Authority: California

1.b. Bar Number (if applicable): 343486

1.c. I (select **only one** box) ☒ am not ☐ am subject to any order suspending, enjoining, restraining, disbarring, or otherwise restricting me in the practice of law. If you are subject to any orders, use the space provided in **Part 6. Additional Information** to provide an explanation.

1.d. Name of Law Firm or Organization (if applicable): HS Law Corp

2.a. ☐ I am an accredited representative of the following qualified nonprofit religious, charitable, social service, or similar organization established in the United States and recognized by the Department of Justice in accordance with 8 CFR part 1292.

2.b. Name of Recognized Organization: N/A

2.c. Date of Accreditation (mm/dd/yyyy): N/A

3. ☐ I am associated with N/A, the attorney or accredited representative of record who previously filed Form G-28 in this case, and my appearance as an attorney or accredited representative for a limited purpose is at his or her request.

4.a. ☐ I am a law student or law graduate working under the direct supervision of the attorney or accredited representative of record on this form in accordance with the requirements in 8 CFR 292.1(a)(2).

4.b. Name of Law Student or Law Graduate: N/A

Part 3. Notice of Appearance as Attorney or Accredited Representative

If you need extra space to complete this section, use the space provided in **Part 6. Additional Information**.

This appearance relates to immigration matters before (select **only one** box):

1.a. ☒ U.S. Citizenship and Immigration Services (USCIS)

1.b. List the form numbers or specific matter in which appearance is entered.

I-140, ETA 9089

2.a. ☐ U.S. Immigration and Customs Enforcement (ICE)

2.b. List the specific matter in which appearance is entered.

N/A

3.a. ☐ U.S. Customs and Border Protection (CBP)

3.b. List the specific matter in which appearance is entered.

N/A

4. Receipt Number (if any)

► N/A

5. I enter my appearance as an attorney or accredited representative at the request of the (select **only one** box):

☐ Applicant ☒ Petitioner ☐ Requestor
☐ Beneficiary/Derivative ☐ Respondent (ICE, CBP)

Information About Client (Applicant, Petitioner, Requestor, Beneficiary or Derivative, Respondent, or Authorized Signatory for an Entity)

6.a. Family Name (Last Name): LOPES

6.b. Given Name (First Name): Jose Evandeilton

6.c. Middle Name: N/A

7.a. Name of Entity (if applicable)

N/A

7.b. Title of Authorized Signatory for Entity (if applicable)

N/A

8. Client's USCIS Online Account Number (if any)

► N/A

9. Client's Alien Registration Number (A-Number) (if any)

► A- N/A

Client's Contact Information

10. Daytime Telephone Number

+55 (41) 98840-8938

11. Mobile Telephone Number (if any)

+55 (41) 98840-8938

12. Email Address (if any)

evandeilton@gmail.com

Mailing Address of Client

NOTE: Provide the client's mailing address. **Do not** provide the business mailing address of the attorney or accredited representative **unless** it serves as the safe mailing address on the application or petition being filed with this Form G-28.

13.a. Street Number and Name: PO Box 90487

13.b. ☐ Apt. ☐ Ste. ☐ Flr. N/A

13.c. City or Town: San Diego

13.d. State: CA **13.e.** ZIP Code: 92169

13.f. Province: N/A

13.g. Postal Code: N/A

13.h. Country

USA

Part 4. Client's Consent to Representation and Signature

Consent to Representation and Release of Information

I have requested the representation of and consented to being represented by the attorney or accredited representative named in **Part 1.** of this form. According to the Privacy Act of 1974 and U.S. Department of Homeland Security (DHS) policy, I also consent to the disclosure to the named attorney or accredited representative of any records pertaining to me that appear in any system of records of USCIS, ICE, or CBP.

Part 4. Client's Consent to Representation and Signature (continued)

Options Regarding Receipt of USCIS Notices and Documents

USCIS will send notices to both a represented party (the client) and his, her, or its attorney or accredited representative either through mail or electronic delivery. USCIS will send all secure identity documents and Travel Documents to the client's U.S. mailing address.

If you want to have notices and/or secure identity documents sent to your attorney or accredited representative of record rather than to you, please select **all applicable** items below. You may change these elections through written notice to USCIS.

1.a. ☒ I request that USCIS send original notices on an application or petition to the business address of my attorney or accredited representative as listed in this form.

1.b. ☒ I request that USCIS send any secure identity document (Permanent Resident Card, Employment Authorization Document, or Travel Document) that I receive to the U.S. business address of my attorney or accredited representative (or to a designated military or diplomatic address in a foreign country (if permitted)).

NOTE: If your notice contains Form I-94, Arrival-Departure Record, USCIS will send the notice to the U.S. business address of your attorney or accredited representative. If you would rather have your Form I-94 sent directly to you, select **Item Number 1.c.**

1.c. ☐ I request that USCIS send my notice containing Form I-94 to me at my U.S. mailing address.

Signature of Client or Authorized Signatory for an Entity

2.a. Signature of Client or Authorized Signatory for an Entity

➡ Jose Claudio Lara Lopez

2.b. Date of Signature (mm/dd/yyyy) 03/25/2026

Part 5. Signature of Attorney or Accredited Representative

I have read and understand the regulations and conditions contained in 8 CFR 103.2 and 292 governing appearances and representation before DHS. I declare under penalty of perjury under the laws of the United States that the information I have provided on this form is true and correct.

1. a. Signature of Attorney or Accredited Representative

1.b. Date of Signature (mm/dd/yyyy) 03/25/2026

2.a. Signature of Law Student or Law Graduate

N/A

2.b. Date of Signature (mm/dd/yyyy) N/A

Part 6. Additional Information

If you need extra space to provide any additional information within this form, use the space below. If you need more space than what is provided, you may make copies of this page to complete and file with this form or attach a separate sheet of paper. Type or print your name at the top of each sheet; indicate the **Page Number**, **Part Number**, and **Item Number** to which your answer refers; and sign and date each sheet.

1.a Family Name (Last Name): LOPES

1.b. Given Name (First Name): Jose Evandeilton

1.c. Middle Name: N/A

2.a. Page Number: N/A **2.b.** Part Number: N/A **2.c.** Item Number: N/A

2.d.

N/A

3.a. Page Number: N/A **3.b.** Part Number: N/A **3.c.** Item Number: N/A

3.d.

N/A

4.a. Page Number: N/A **4.b.** Part Number: N/A **4.c.** Item Number: N/A

4.d.

N/A

5.a. Page Number: N/A **5.b.** Part Number: N/A **5.c.** Item Number: N/A

5.d.

N/A

6.a. Page Number: N/A **6.b.** Part Number: N/A **6.c.** Item Number: N/A

6.d.

N/A

Immigrant Petition for Alien Workers

Department of Homeland Security
U.S. Citizenship and Immigration Services

USCIS
Form I-140
OMB No. 1615-0015
Expires 02/28/2027

For USCIS Use Only	Fee Stamp	Priority Date	Consulate	Action Block

Classification

- ☐ 203(b)(1)(A) Alien of Extraordinary Ability
- ☐ 203(b)(1)(B) Outstanding Professor or Researcher
- ☐ 203(b)(1)(C) Multinational Executive or Manager
- ☐ 203(b)(2) Member of Professions with Advanced Degree/Exceptional Ability
- ☐ 203(b)(3)(A)(i) Skilled Worker
- ☐ 203(b)(3)(A)(ii) Professional
- ☐ 203(b)(3)(A)(iii) Other Worker

Certification

- ☐ National Interest Waiver (NIW)
- ☐ Schedule A, Group I
- ☐ Schedule A, Group II

Remarks

To be completed by an Attorney or Accredited Representative (if any).	☒ Select this box if Form G-28 or Form G-28I is attached.	Attorney State Bar Number (if applicable)	Attorney or Accredited Representative USCIS Online Account Number (if any)
		343486	007492625438

► **START HERE - Type or print in black ink.**

Part 1. Information About the Person or Organization Filing This Petition

If an individual is filing this petition, answer **Item Numbers 1.a. - 1.c.** If a company or organization is filing this petition, answer **Item Number 2.**

1.a. Family Name (Last Name): LOPES

1.b. Given Name (First Name): Jose Evandeilton

1.c. Middle Name: N/A

2. Company or Organization Name: N/A

Mailing Address

3.a. In Care Of Name: Otavio HAVERROTH SILVA

3.b. Street Number and Name: PO Box 90487

3.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

3.d. City or Town: San Diego

3.e. State: CA **3.f.** ZIP Code: 92169

3.g. Province: N/A

3.h. Postal Code: N/A

3.i. Country: USA

Other Information

4. IRS Employer Identification Number (EIN) ► N/A

5. Are you a nonprofit organized as tax exempt or a governmental research organization? ☐ Yes ☒ No

6. Do you currently employ a total of 25 or fewer full-time equivalent employees in the United States, including all affiliates or subsidiaries of this company/organization? ☒ Yes ☐ No

7. U.S. Social Security Number (SSN) (if any) ► N/A

8. USCIS Online Account Number (if any) ► N/A

Part 2. Petition Type

This petition is being filed for (select **only one** box):

1.a. ☐ An alien of extraordinary ability.

1.b. ☐ An outstanding professor or researcher.

1.c. ☐ A multinational executive or manager.

1.d. ☐ A member of the professions holding an advanced degree or an alien of exceptional ability (who is **NOT** seeking a National Interest Waiver (NIW)).

1.e. ☐ A professional (at a minimum, possessing a bachelor's degree or a foreign degree equivalent to a U.S. bachelor's degree).

Part 2. Petition Type (continued)

1.f. ☐ A skilled worker (requiring at least two years of specialized training or experience).

1.g. ☐ Any other worker (requiring less than two years of training or experience).

1.h. ☒ An alien applying for an NIW (who **IS** a member of the professions holding an advanced degree or an alien of exceptional ability).

This petition is being filed (select **only one** box):

2.a. ☐ To amend a previously filed petition.

Previous Petition Receipt Number ► N/A

2.b. ☐ For the Schedule A, Group I or II designation.

Part 3. Information About the Person for Whom You Are Filing

1.a. Family Name (Last Name): LOPES

1.b. Given Name (First Name): Evandeilton Lopes

1.c. Middle Name: N/A

Mailing Address

2.a. In Care Of Name: Otavio HAVERROTH SILVA

2.b. Street Number and Name: PO Box 90487

2.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

2.d. City or Town: San Diego

2.e. State: CA **2.f.** ZIP Code: 92169

2.g. Province: N/A

2.h. Postal Code: N/A

2.i. Country: USA

Other Information

3. Date of Birth (mm/dd/yyyy): 03/22/1983

4. City/Town/Village of Birth: Buique

5. State or Province of Birth: Pernambuco

6. Country of Birth: Brazil

7. Country of Citizenship or Nationality: Brazil

8. Alien Registration Number (A-Number) (if any) ► A- N/A

9. U.S. SSN (if any) ► N/A

Information About His or Her Last Arrival in the United States

If the person for whom you are filing is in the United States, provide the following information.

10. Date of Last Arrival (mm/dd/yyyy): N/A

11.a. Form I-94 Arrival-Departure Record Number ► N/A

11.b. Expiration Date of Authorized Stay Shown on Form I-94 (mm/dd/yyyy): N/A

11.c. Status on Form I-94 (for example, class of admission, or paroled, if paroled): N/A

12. Passport Number: N/A

13. Travel Document Number: N/A

14. Country of Issuance for Passport or Travel Document: N/A

15. Expiration Date for Passport or Travel Document (mm/dd/yyyy): N/A

Part 4. Processing Information

Provide the following information for the person named in **Part 3.** (select **only one** box):

1.a. ☒ Alien will apply for a visa abroad at a U.S. Embassy or U.S. Consulate at:

1.b. City or Town: Rio de Janeiro

1.c. Country: Brazil

2.a. ☐ Alien is in the United States and will apply for adjustment of status to that of lawful permanent resident.

Part 4. Processing Information (continued)

2.b. Alien's current country of residence or, if now in the United States, last country of permanent residence abroad.

Brazil

If you provided a United States address in **Part 3.**, provide the person's foreign address in **Item Numbers 3.a. - 3.f.**:

3.a. Street Number and Name: 799 Shalon

3.b. ☐ Apt. ☐ Ste. ☐ Flr. House 01

3.c. City or Town: Piraquara

3.d. Province: Parana

3.e. Postal Code: 83304260

3.f. Country: Brazil

If the person's native alphabet is other than Roman letters, type or print the person's foreign name and address in the native alphabet in **Item Numbers 4.a. - 4.c.**:

4.a. Family Name (Last Name): N/A

4.b. Given Name (First Name): N/A

4.c. Middle Name: N/A

Mailing Address

5.a. In Care Of Name: N/A

5.b. Street Number and Name: N/A

5.c. ☐ Apt. ☐ Ste. ☐ Flr. N/A

5.d. City or Town: N/A

5.e. Province: N/A

5.f. Postal Code: N/A

5.g. Country: N/A

If you answer "Yes" to **Item Numbers 6.a. - 10.**, provide the case number, office location, date of decision, and disposition of the decision in the space provided in **Part 11. Additional Information**.

6.a. Are you filing any other petitions or applications with this Form I-140? ☐ Yes ☒ No

6.b. If you answered "Yes" **to Item Number 6.a.**, select all applicable boxes:

- ☐ Form I-485
- ☐ Form I-131
- ☐ Form I-765
- ☐ Other (Provide an explanation in **Part 11. Additional Information**.)

7. Is the person for whom you are filing in removal proceedings? ☐ Yes ☒ No

8. Has any immigrant visa petition ever been filed by or on behalf of this person? ☐ Yes ☒ No

9. Are you filing this petition without an original labor certification because the original labor certification was previously submitted in support of another Form I-140? ☐ Yes ☒ No

10. If you are filing this petition without an original labor certification, are you requesting that U.S. Citizenship and Immigration Services (USCIS) request a duplicate labor certification from the Department of Labor (DOL)? ☐ Yes ☒ No

Part 5. Additional Information About the Petitioner

Type of petitioner (select **only one** box):

1.a. ☐ Employer

1.b. ☒ Self

1.c. ☐ Other (For example, Lawful Permanent Resident, U.S. citizen or any other person filing on behalf of the alien)

N/A

If a company or an organization is filing this petition, provide the following information:

2. Type of Business: N/A

3. Date Established (mm/dd/yyyy): N/A

4. Current Number of U.S. Employees: N/A

5. Gross Annual Income $ N/A

6. Net Annual Income $ N/A

7. NAICS Code ▶ N/A

8. Labor Certification DOL Case Number: N/A

Part 5. Additional Information About the Petitioner (continued)

9. Labor Certification DOL Filing Date (mm/dd/yyyy)

N/A

10. Labor Certification Expiration Date (mm/dd/yyyy)

N/A

If an individual is filing this petition, provide the following information.

11. Occupation

Data Scientist

12. Annual Income $ N/A

Part 6. Basic Information About the Proposed Employment

1. Job Title

General and Operations Managers

2. SOC Code ▶ 11 - 1021

3. Nontechnical Job Description

See page 8.

4. Is this a full-time position? ☒ Yes ☐ No

5. If the answer to **Item Number 4.** is "No," how many hours per week for the position?

N/A

6. Is this a permanent position? ☒ Yes ☐ No

7. Is this a new position? ☐ Yes ☒ No

8. Wages (Specify hour, week, month, or year):

$ 153,000.00 per year

Worksite Location

For **Item Numbers 9.a. - 9.e.**, provide the address where the person will work if different from the address provided in **Part 1.**

9.a. Street Number and Name: To be determined

9.b. ☐ Apt. ☐ Ste. ☐ Flr. To be determined

9.c. City or Town: Raleigh

9.d. State: NC **9.e.** ZIP Code: To be determined

Part 7. Information About the Spouse and All Children of the Person for Whom You Are Filing

For **Part 7.**, provide information on the spouse and all children related to the individual for whom you are filing this petition. Also, note if the individual will apply for a visa abroad or adjustment of status as the dependent of the individual for whom the petition is filed. If you need extra space to provide information about additional family members, use the space provided in **Part 11. Additional Information**.

Person 1

1.a. Family Name (Last Name): PROCOPIO DA SILVA LOPES

1.b. Given Name (First Name): Maria das Dores

1.c. Middle Name: N/A

2. Date of Birth (mm/dd/yyyy): 06/07/1980

3. Country of Birth

Brazil

4. Relationship: Spouse

5. Is he or she applying for adjustment of status? ☐ Yes ☒ No

6. Is he or she applying for a visa abroad? ☒ Yes ☐ No

Person 2

7.a. Family Name (Last Name): PROCOPIO LOPES

7.b. Given Name (First Name): Davi

7.c. Middle Name: N/A

8. Date of Birth (mm/dd/yyyy): 08/06/2013

9. Country of Birth

Brazil

10. Relationship: Son

11. Is he or she applying for adjustment of status? ☐ Yes ☒ No

12. Is he or she applying for a visa abroad? ☒ Yes ☐ No

Part 7. Information About Spouse and All Children of the Person for Whom You Are Filing (continued)

Person 3

13.a. Family Name (Last Name): PROCOPIO LOPES

13.b. Given Name (First Name): Lucas

13.c. Middle Name: N/a

14. Date of Birth (mm/dd/yyyy): 10/09/2015

15. Country of Birth: Brazil

16. Relationship: Son

17. Is he or she applying for adjustment of status? ☐ Yes ☒ No

18. Is he or she applying for a visa abroad? ☒ Yes ☐ No

Person 4

19.a. Family Name (Last Name): N/A

19.b. Given Name (First Name): N/A

19.c. Middle Name: N/A

20. Date of Birth (mm/dd/yyyy): N/A

21. Country of Birth: N/A

22. Relationship: N/A

23. Is he or she applying for adjustment of status? ☐ Yes ☐ No

24. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Person 5

25.a. Family Name (Last Name): N/A

25.b. Given Name (First Name): N/A

25.c. Middle Name: N/A

26. Date of Birth (mm/dd/yyyy): N/A

27. Country of Birth: N/A

28. Relationship: N/A

29. Is he or she applying for adjustment of status? ☐ Yes ☐ No

30. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Person 6

31.a. Family Name (Last Name): N/A

31.b. Given Name (First Name): N/A

31.c. Middle Name: N/A

32. Date of Birth (mm/dd/yyyy): N/A

33. Country of Birth: N/A

34. Relationship: N/A

35. Is he or she applying for adjustment of status? ☐ Yes ☐ No

36. Is he or she applying for a visa abroad? ☐ Yes ☐ No

Part 8. Contact Information, Certification, and Signature of the Petitioner or Authorized Signatory

Petitioner or Authorized Signatory's Contact Information

1.a. Petitioner's or Authorized Signatory's Family Name (Last Name)

LOPES

1.b. Petitioner's or Authorized Signatory's Given Name (First Name)

Jose Evandeilton

2. Petitioner's or Authorized Signatory's Title

N/A

3. Petitioner's or Authorized Signatory's Daytime Telephone Number

+55 41 98901-5631

4. Petitioner's or Authorized Signatory's Mobile Telephone Number (if any)

+55 41 98901-5631

5. Petitioner's or Authorized Signatory's Email Address (if any)

evandeilton@gmail.com

Petitioner's or Authorized Signatory's Certification and Signature

If filing this petition on behalf of an organization, I certify that I am authorized to do so by the organization:

a. I reviewed and provided or authorized all of the responses and information in my petition;

b. I understood all of the responses and information contained in, and submitted with, my petition; and

c. All of the responses and information were complete, true, and correct at the time of filing

Furthermore, I authorize the release of any information from any and all of my records as authorized signatory and the petitioner's records that USCIS may need to determine the petitioner's eligibility for an immigration request and to other entities and persons where necessary for the administration and enforcement of U.S. immigration law.

6.a. Petitioner's or Authorized Signatory's Signature

José Evandeilton Lopes

6.b. Date of Signature (mm/dd/yyyy) 03/25/2026

Part 9. Interpreter's Contact Information, Certification, and Signature

Interpreter's Full Name

1.a. Interpreter's Family Name (Last Name)

N/A

1.b. Interpreter's Given Name (First Name)

N/A

2. Interpreter's Business or Organization Name

N/A

Interpreter's Contact Information

3. Interpreter's Daytime Telephone Number

N/A

4. Interpreter's Mobile Telephone Number (if any)

N/A

5. Interpreter's Email Address (if any)

N/A

Interpreter's Certification and Signature

I certify, under penalty of perjury, that I am fluent in English and N/A, and I have interpreted every question on the petition and Instructions and interpreted the petitioner's or authorized signatory's answers to the questions in that language, and the petitioner or authorized signatory informed me that they understood every instruction, question, and answer on the petition.

6.a. Interpreter's Signature

N/A

6.b. Date of Signature (mm/dd/yyyy) N/A

Part 10. Contact Information, Certification, and Signature of the Person Preparing this Petition, if Other Than the Petitioner or Authorized Signatory

Preparer's Full Name

1. Preparer's Family Name (Last Name)

HAVERROTH SILVA

Preparer's Given Name (First Name)

Otavio

2. Preparer's Business or Organization Name

HS Law Corp

Preparer's Contact Information

3. Preparer's Daytime Telephone Number

5102419336

4. Preparer's Mobile Telephone Number (if any)

5102419336

5. Preparer's Email Address (if any)

otavio@legalhs.com

Preparer's Certification and Signature

I certify, under penalty of perjury, that I prepared this petition for the petitioner or authorized signatory at their request and with express consent and that all of the responses and information contained in and submitted with the petition are complete, true, and correct and reflects only information provided by the petitioner or authorized signatory. The petitioner or authorized signatory reviewed the responses and information and informed me that they understand the responses and information in or submitted with the petition.

6. Preparer's Signature

Date of Signature (mm/dd/yyyy) 03/25/2026

Part 11. Additional Information

If you need extra space to provide any additional information within this petition, use the space below. If you need more space than what is provided, you may make copies of this page to complete and file with this petition or attach a separate sheet of paper. Type or print your name and A-Number (if any) at the top of each sheet; indicate the **Page Number**, **Part Number**, and **Item Number** to which your answer refers; and sign and date each sheet.

1. Family Name (Last Name): LOPES

Given Name (First Name): Jose Evandeilton

Middle Name: N/A

2. IRS EIN ► N/A

3.

Page Number	Part Number	Item Number
4	6	3

Provides strategic leadership over the company's operations, growth, and financial sustainability. Oversees client relationships, partnerships, and project delivery to ensure quality and compliance, while leading team development and representing the company with industry and regulatory stakeholders.

4.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

5.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

6.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

7.

Page Number	Part Number	Item Number
N/A	N/A	N/A

N/A

Employment OMB Approval: 1205-0451
Expiration Date: 02/28/2029

PERMANENT EMPLOYMENT CERTIFICATION APPROVAL

A. U.S. Government Agency Use Only

Pursuant to the provisions of Sections 212(a)(5)(A) of the Immigration and Nationality Act, as amended, the Department hereby certifies that there are not sufficient workers who are able, willing, and qualified, and who will be available at the time of application for a visa and admission into the United States and place needed to fill the job opportunities for which certification is sought, and the permanent employment of the foreign worker will not adversely affect the wages and working conditions of workers in the United States similarly employed.

Therefore, by virtue of the signature below, the Department hereby acknowledges granting certification for the following *Application for Permanent Employment Certification* (Form ETA-9089):

1. DOL Case Number		2. Case Status
3. Employer Legal Business Name		4. Employer FEIN
5. Foreign Worker's Last (family) Name		
6. Foreign Worker's First (given) Name		
7. Foreign Worker's Middle Name(s)		
8. Job Title		
9. SOC Code	10. SOC Occupational Title	
Labor Certification Validity Information		
11. Filing Date	12. Determination Date	13. Expiration Date
14. Department of Labor Office of Foreign Labor Certification *(electronic signature)*		

Pursuant to 20 CFR 656, the aforementioned permanent labor certification is valid only for the job opportunity, the foreign worker, and the area of intended employment specified on the approved Form ETA-9089, including all appendices and any modifications approved by the Department. The aforementioned filing date on this approved *Application for Permanent Employment Certification*, established under 20 CFR 656.17(c), may be used as a priority date by the Department of Homeland Security and the Department of State, as appropriate. This approved *Application for Permanent Employment Certification* will expire if not filed in support of *Immigrant Petition for Alien Workers* (Form I-140) with the Department of Homeland Security by the aforementioned expiration date.

The foreign worker covered by this approved *Application for Permanent Employment Certification* has declared under Section B below, under penalty of perjury, that the foreign worker has read and reviewed every page of Appendix A for this approved Form ETA-9089, takes full responsibility for the accuracy of all information contained therein, and intends to accept permanent employment in the job opportunity specified on the approved Form ETA-9089, including all appendices, offered by the employer if granted a visa or an adjustment of status based on this permanent labor certification.

The employer covered by this approved *Application for Permanent Employment Certification* has declared under Section D below under penalty of perjury that it has read and reviewed every page of this approved Form ETA-9089, including all appendices, and takes full responsibility for the accuracy of all information contained therein and all documentation supporting this approved *Application for Permanent Employment Certification*, including any representations made by the employer's authorized preparer, agent or attorney, as applicable.

Application for Permanent Employment Certification
Form ETA-9089 – Final Determination: Permanent Labor Certification Approval
U.S. Department of Labor

B. Foreign Worker Declaration

I declare under penalty of perjury that I have read and reviewed all information contained in Appendix A of this approved Form ETA-9089, and that to the best of my knowledge the information contained therein is true and accurate. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

I further declare that I am the person identified under Section A, Fields 5, 6, and 7 above. I did not participate in any activities involving the interviewing or consideration of U.S. workers and intend to accept permanent employment in the job opportunity specified on this approved Form ETA-9089, including all appendices, offered by the employer if granted a visa or an adjustment of status based on this permanent labor certification.

1. Signature *	2. Date Signed *
José Eduardo Lopes.	03/25/2026

C. Attorney or Agent Declaration

I declare under penalty of perjury that I am an attorney for the employer, or that I am an employee of, or hired by, the employer listed in Section C of the Form ETA-9089, and that I have been designated by that employer in accordance with 20 CFR 656.10(b) to act on its behalf in connection with this application.

I hereby certify that I have provided to the employer the entire Form ETA-9089, appendices, and all supporting documentation for review and to the best of my knowledge the information contained herein is true and accurate, including the employer's declaration regarding activities that I have undertaken on the employer's behalf in connection with this application. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement hereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

1. Attorney or Agent's Last (family) Name *	2. First (given) Name *	3. Middle Initial §
HAVERROTH SILVA	Otavio	N/A
4. Firm/Business Name §		
HS Law Corp		
5. Signature *		6. Date Signed *
		03/25/2026

D. Employer Declaration

I hereby designate the agent or attorney identified in Section C (if any) of the Form ETA-9089 to represent me for the purpose of labor certification and, by virtue of my signature in Field 5 below, **I take full responsibility** for the accuracy of any representations made by my agent or attorney, and my designated preparer identified in Section C above, on every page of the Form ETA-9089, including all appendices, and documentation supporting this application.

I declare under penalty of perjury that I have read and reviewed this application, including every page of the Form ETA-9089, appendices, and supporting documentation, and that to the best of my knowledge the information contained therein is true and accurate. *I understand that to knowingly and/or willfully furnish materially false information in the preparation of this form and any supplement thereto or to aid, abet, or counsel another to do so is a federal offense punishable by fines, imprisonment, or both (18 U.S.C. 2, 1001, 1546, 1621).*

1. Last (family) Name *	2. First (given) Name *	3. Middle Initial §
4. Title *		
5. Signature *		6. Date Signed *

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date:02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix A: Foreign Worker Information
U.S. Department of Labor

FOREIGN WORKER INFORMATION

A. Foreign Worker Contact Information

1. Foreign Worker's Last (family) Name * LOPES		
2. Foreign Worker's First (given) Name * Jose Evandeilton		
3. Foreign Worker's Middle Name(s) * N/A		
4. Address 1 *(current)* * 799 Shalon St		
5. Address 2 *(apartment/suite/floor and number)* § House 01		
6. City * Piraquara	7. State * Parana	8. Postal Code * 83304260
9. Country * Brazil	10. Province § Parana	
11. Date of Birth *(mm/dd/yyyy)* * 03/22/1983	12. Class of Admission * N/A	13. Alien Registration Number (A#) (if applicable) * N/A
14. Country of Birth * Brazil		
15. Country of Citizenship or Nationality * Brazil		

B. Foreign Worker Education §

a. Educational Attainment Information 1

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ☐ Master's ■ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Probability and Statistics	
1c. Name of Institution that issued the degree/diploma Federal University of Parana (UFPR)	
1d. Name of Country of institution identified in question 1c Brazil	1e. Month/year attained (*mm/yyyy*) 2027

b. Educational Attainment Information 2

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ■ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)	
1a. If "Other Degree" in question 1, specify the diploma/degree attained	
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Numerical Methods in Engineering	
1c. Name of Institution that issued the degree/diploma Federal University of Parana (UFPR)	
1d. Name of Country of Institution identified in question 1c Brazil	1e. Month/year attained (*mm/yyyy*) 06/2023

PERM Case Number: _____ Case Status: _____ Determination Date: _____ Expiration Date: _____

***B. Foreign Worker Education** (continued)*

c. Educational Attainment Information 3

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ■ Other Degree (JD, MD, etc.)
1a. If "Other Degree" in question 1, specify the diploma/degree attained MBA
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Business Intelligence
1c. Name of Institution that issued the degree/diploma Positivo University

1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (*mm/yyyy*)
Brazil	12/2015

d. Educational Attainment Information 4

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate's ■ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)
1a. If "Other Degree" in question 1, specify the diploma/degree attained
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field) Statistics
1c. Name of Institution that issued the degree/diploma Federal University of Parana (UFPR)

1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (*mm/yyyy*)
Brazil	12/2013

e. Educational Attainment Information 5

1. Education: U.S. Diploma/Degree attained relevant to the job opportunity ☐ None ☐ High School/GED ☐ Associate's ☐ Bachelor's ☐ Master's ☐ Doctorate (PhD) ☐ Other Degree (JD, MD, etc.)
1a. If "Other Degree" in question 1, specify the diploma/degree attained
1b. Specify major(s) and/or field(s) of study (may list more than one related major and more than one field)
1c. Name of Institution that issued the degree/diploma

1d. Name of Country of Institution identified in question 1c	1e. Month/year attained (*mm/yyyy*)

C. Foreign Worker Training Qualifications §

a. Training, Certification(s), and/or License(s) Information 1

1. Name of Institution/School/Training provider Federal Council of Statistics
1a. Name of training, coursework, experience received Professional License

1b. Training/Certifications/licenses attained (if applicable) License number: 11452		
1c. Start date of training (*mm/yyyy*)	1d. End date of training (*mm/yyyy*)	1e. Month/year awarded (*mm/yyyy*) 03/2014

b. Training, Certification(s), and/or License(s) Information 2

1. Name of Institution/School/Training provider University of Michigan		
1a. Name of training, coursework, experience received Applied Text Mining in Python		
1b. Training/Certifications/Licenses attained (if applicable)		
1c. Start date of training (*mm/yyyy*)	1d. End date of training (*mm/yyyy*)	1e. Month/year awarded (*mm/yyyy*) 01/2018

c. Training, Certification(s), and/or License(s) Information 3

1. Name of Institution/School/Training provider UCDAVIS		
1a. Name of training, coursework, experience received Creating Dashboards and Storytelling with Tableau		
1b. Training/certifications/licenses attained (if applicable)		
1c. Start date of training (*mm/yyyy*)	1d. End date of training (*mm/yyyy*)	1e. Month/year awarded (*mm/yyyy*) 01/2018

D. Foreign Worker Training Qualifications §

a. Skills, Abilities, and Proficiencies 1

1. Name of Employer/Institution/School/Training Provider Dom Bosco School of Arts and Vocational Trades	
1a. Country Brazil	1b. State, Territory, or Province Pernambuco
1c. Description of specific skills, abilities, and/or proficiencies the foreign worker possesses or attained, which help establish whether the foreign worker meets the requirements identified for the job opportunity *(up to 1,500 characters)* Refrigeration Mechanic Certification: Refrigeration/Salesianos (320 class hours)	

b. Skills, Abilities, and Proficiencies 2

1. Name of Employer/Institution/School/Training Provider
N/A

1a. Country	1b. State, Territory, or Province
Brazil	N/A

1c. Description of specific skills, abilities, and/or proficiencies the foreign worker possesses or attained, which help establish whether the foreign worker meets the requirements identified for the job opportunity *(up to 1,500 characters)*

Computer Technician

Certitications:
Advanced Maintance Tools – Elaborata – Parana/Brazil – 09/2007 (15 class hours)
Assembly and Maintance of Microcomputers – Parana/Brazil – 09/2007 (45 class hours)
Local Networks – Parana/Brazil – 04/2007 (24 class hours)
Microcomputer Maintenance – Pernambuco/Brazil – 04/2002 (40 class hours)
Interney – Pernambuco/Brazil – 04/2002 (40 class hours)

E. Foreign Worker Work Experience §

a. Work Experience 1

1. Employer Name
STIX

1a. Address 1
2104 Araguaia

1b. Address 2
1st Floor

1c. City or Town	1d. Postal Code
Barueri	06455000

1e. Country	1f. State, Territory, or Province
Brazil	Sao Paulo

1g. Job Title
Data Science Consultant

1h. Start Date *(mm/yyyy)*	1i. End Date *(mm/yyyy)*	1j. Present	1k. Hours Worked Per Week
02/2024	Current	■ Yes ☐ No	40

1l. Job Duties: Specify details of the job (work tasks performed, use of tools/equipment, supervision, etc.) (*up to 3,500 characters*)

Lead customer data analysis and segmentation for a large loyalty program, generating strategic insights for senior Marketing and CRM teams. Develop, deploy, and monitor analytical models to identify high-value customer segments, optimize marketing performance, and support fraud prevention. Oversee data architecture, process automation, and reporting to deliver actionable insights for executive decision-making.

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Johns Hopkins University
Name of Training: Mastering Software Development in R Capstone
Month/year awarded: 01/2018

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: UCDAVIS
Name of Training: Visual Analytics with Tableau
Month/year awarded: 12/2017

For Public Burden Statement, see the Instructions for Form ETA-9089.

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: UCDAVIS
Name of Training: Essential Design Principles for Tableau
Month/year awarded: 11/2017

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: UCDAVIS
Name of Training: Fundamentals of Visualization with Tableau
Month/year awarded: 10/2017

For Public Burden Statement, see the Instructions for Form ETA-9089.

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: University of Michigan
Name of Training: Applied Machine Learning in Python
Month/year awarded: 07/2017

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Johns Hopkins University
Name of Training: Building Data Visualization Tools
Month/year awarded: 06/2017

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Johns Hopkins University
Name of Training: Advanced R Programming
Month/year awarded: 05/2017

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Johns Hopkins University
Name of Training: Building R Packages
Month/year awarded: 05/2017

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Johns Hopkins University
Name of Training: The R Programming Environment
Month/year awarded: 04/2017

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Johns Hopkins University
Name of Training: Mastering Software Development in R
Month/year awarded: 04/2017

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: University of Michigan
Name of Training: Applied Plotting, Charting & Data Representation in Python
Month/year awarded: 04/2017

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Univesity of Michigan
Name of Training: Introduction to Data Science in Python
Month/year awarded: 12/2016

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

Application for Permanent Employment Certification
Form ETA-9089 – Appendix C: Supplemental Information
U.S. Department of Labor

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: University of Michigan
Name of Training: Applied Data Science with Python
Month/year awarded: 09/2016

B. Supplemental Information 2 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Federal University of Parana (UFPR)
Name of Training: Symposium on numerical methods in engineering (SMNE 2024) – Beta Regression Methods for Scale Data
Month/year awarded: 11/2024

For Public Burden Statement, see the Instructions for Form ETA-9089.

PERM Case Number: _____ Case Status: _____ Determination Date: _____ Expiration Date: _____

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	C	1a. Section Name or Category of Supplemental Information	**Foreign Worker Training Qualifications**

1b. Supplemental Information. *(up to 1,500 characters)*

Training, Certification(s), and/or License(s) Information
Name of Institution: Federal University of Parana(UFPR)
Name of Training: Symposium of Numerical Methods in Engineering (SMNE 2023) – Prediction of Cardiac Risks via Bayesian Networks
Month/year awarded: 11/2023

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	**Foreign Worker Work Experience**

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience 2
Employer name: Bradesco
Employer's Address: 168 Marechal Deodoro, 4th Floor. Curitiba – Parana/Brazil 80010010
Job Title: Data Science III
Star date – End date: 01/2023 – 01/2024
Job duties: Conduct data analysis to design and implement credit policies for corporate working capital, supporting risk mitigation and portfolio growth. Analyze credit scores and decision matrices using advanced analytics tools, and produce reports and visualizations that inform executive decision–making and strategic expansion initiatives.

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience 3
Employer name: Clearsale
Employer's Address: 939 Marcos Penteado de Ulho Rodrigues Avenue. Barueri – Sao Paulo/Brazil 06460040
Job Title: Modeling Analyst
Star date – End date: 10/2018 – 09/2021
Job duties: Monitor and safeguard fraud prevention models within a large-scale transaction data environment, ensuring the integrity and reliability of core analytical systems. Develop anomaly detection and reporting tools to track model performance, support management decision-making, and strengthen fraud detection capabilities across major retail clients.

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience 4
Employer name: Boa Vista SCPC
Employer's Address: 267 Tambore Avenue, 15 Floor. Barueri – Sao Paulo/Brazil 06460000
Job Title: Senior Modeling Analyst
Star date – End date: 07/2017 – 10/2018
Job duties: Monitor and manage the lifecycle and performance of credit risk and behavioral models, ensuring accuracy, stability, and compliance. Produce regular analytical reports for internal and external stakeholders, maintain data quality across large-scale databases, and support business growth through reliable model governance and performance oversight.

For Public Burden Statement, see the Instructions for Form ETA-9089.

OMB Approval: 1205-0451
Expiration Date: 02/28/2029

SUPPLEMENTAL INFORMATION

A. Supplemental Information 1 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience 5
Employer name: HSBC
Employer's Address: 11 Luiz Xavier Avenue. Curitiba – Parana/Brazil 80020020
Job Title: Credit Risk Analyst
Star date – End date: 06/2013 – 07/2014
Job duties: Develop, implement, and monitor credit risk and behavioral scoring models, including backtesting and validation. Build analytical datasets, apply statistical modeling techniques, and prepare reports and studies to support risk management and strategic decision-making.

B. Supplemental Information 2 §

1. Section and Item Number	E	1a. Section Name or Category of Supplemental Information	Foreign Worker Work Experience

1b. Supplemental Information. *(up to 1,500 characters)*

Work Experience 6
Employer name: HSBC
Employer's Address: 11 Luiz Xavier Avenue. Curitiba – Parana/Brazil 80020020
Job Title: Risk Modeling Intern II
Star date – End date: 06/2011 – 05/2013
Job duties: Starting my career in the field, I provided direct support to the senior team in the development, implementation, and monitoring of credit score and behavioral models in the corporate portfolio, aiming to comply with Basel II agreement policies related to risk capital. My tasks, performed using SAS, R, and Excel, included conducting statistical studies and preparing management reports that served as the basis for model analyses and optimizations carried out by the analyst team.

For Public Burden Statement, see the Instructions for Form ETA-9089.

YOUSA
Law Firm

SUMMARY OF COVER LETTER
Petitioner: **LOPES, José Evandeilton**
Type of Petition: **I-140, EB-2 National Interest Waiver**
Classification Sought: **Immigration and Nationality Act 203(b)(2)(B) - Advanced Degree Professional**

This petition is submitted on behalf of **Mr. José Evandeilton Lopes**, a **STEM professional** and **distinguished Applied Statistics and Data Science Expert** with a **Master of Science (M.Sc.)** in Numerical Methods (evaluated as equivalent to a U.S. Master's in Statistics) and over 12 years of progressive experience in statistical modeling, credit risk architecture, and fraud prevention. His background includes senior roles at major financial and technology organizations, such as STIX, Boa Vista (Equifax), Bradesco Bank, and ClearSale, where he developed sophisticated machine learning models to safeguard financial transactions and optimize credit decisioning for millions of consumers. **Mr. Lopes seeks a National Interest Waiver** as **a professional holding an advanced degree** to establish and lead JL Data Dynamics, a U.S.-based data science and statistical consulting firm specializing in advanced predictive modeling, data governance, and fraud risk analytics. Based in Raleigh, North Carolina, within the Research Triangle, the proposed endeavor addresses critical U.S. needs related to financial security, the mitigation of multi-billion dollar fraud losses, and the strengthening of national data infrastructure.

Mr. Lopes satisfies the *Matter of Dhanasar* framework for a National Interest Waiver:

1. **Substantial Merit and National Importance:** Mr. Lopes's proposed endeavor directly addresses critical gaps in U.S. financial security and data integrity. Through advanced Bayesian networks and machine learning methodologies, the endeavor aligns with national priorities reflected in the National AI Initiative Act and the National Cybersecurity Strategy. By providing specialized technical oversight to financial institutions and healthcare providers, Mr. Lopes's work supports economic resilience and protects the integrity of the U.S. digital payment ecosystem, demonstrating clear national importance.

2. **Well-Positioned to Advance the Proposed Endeavor**: Mr. Lopes's qualifications, including a Master's in Statistics, ongoing Doctoral research in Bayesian Networks, and over twelve (12) years of leadership in developing critical models for multinational financial organizations, establish that he is exceptionally well-positioned. Independent letters of support from senior researchers at UFPR and his professional registration with the Federal Council of Statistics (CONFE) corroborate his ability to apply advanced mathematical expertise to lead complex analytical operations. His proven track record of protecting high-value portfolios and mentoring over 850 professionals further supports his capacity to lead JL Data Dynamics as Founder and CEO.

3. **Balancing of Benefits to the United States:** Requiring labor certification would be impractical given the entrepreneurial and highly specialized nature of Mr. Lopes's work. His proposed endeavor is expected to generate substantial public benefits, including the creation of twenty-one (21) high-skilled STEM jobs by Year 5, approximately $989,892 in tax contributions, and the provision of specialized risk mitigation services to U.S. stakeholders, supporting a waiver of the job offer and labor certification requirements.

In light of these considerations, Mr. Lopes meets all of the criteria for a National Interest Waiver. His efforts through JL Data Dynamics will create high-skilled STEM jobs, enhance the security of U.S. financial infrastructure, and provide significant benefits to the nation's data-driven economy. We respectfully request a thorough review of the attached cover letter and supporting documentation, which together provide substantial evidence of Mr. Lopes's advanced qualifications and the national importance of the endeavor he has proposed. The approval of this Form I-140 petition is justified in recognition of Mr. Lopes's contributions to the fields of Applied Statistics, Data Science, and Financial Risk Mitigation in the United States. We respectfully request that this petition be granted.

Thank you for your attention to this matter.

Sincerely,

Otavio Haverroth Silva
California Bar # 343486

February 18, 2026.

VIA USPS

USCIS
Attn: I-140
P.O. Box 660128
Dallas, TX 75266-0128

Ref: I-140 Immigrant Visa Self-Petition of Mr. José Evandeilton Lopes– Request for National Interest Waiver under the EB-2 Classification

STEM PROFESSIONAL AND PROPOSED ENDEAVOR

CIP Code 27.0501 – Statistics, General
CIP Code 30.7001 – Data Science, General

Dear Immigration Officer,

Please note that our firm represents Mr. José Evandeilton Lopes (hereinafter "Mr. Lopes") in his I-140 immigrant visa self-petition under the EB-2 category. We respectfully request his classification as a professional holding an **advanced degree**, and we seek a waiver of the job offer and labor certification requirements pursuant to a National Interest Waiver (NIW), as provided under section 203(b)(2)(B)(ii) of the Immigration and Nationality Act and interpreted by the USCIS in *Matter of Dhanasar*, 26 I&N Dec. 884 (AAO 2016).

Mr. Lopes is a **STEM professional** and a distinguished **Applied Statistics** and **Data Science Expert with a Master of Science (M.Sc.)** in Numerical Methods and over 12 years of progressive, high-level experience in statistical modeling, credit risk architecture, and fraud prevention. His career is defined by technical leadership in major financial and technology organizations, including serving as a Senior Data Scientist at Boa Vista (Equifax) and ClearSale, where he developed sophisticated machine learning models to safeguard financial transactions and optimize credit decisioning for millions of consumers. Furthermore, as a Ph.D. Candidate specializing in Bayesian Networks, Mr. Lopes has demonstrated a unique ability to bridge advanced academic research with practical, high-impact industrial applications, mentoring over 850 professionals and contributing to the modernization of data-driven workflows in the financial sector.

Through his proposed endeavor, executed via JL Data Dynamics, a specialized data science and statistical consulting firm based in Raleigh, North Carolina, Mr. Lopes will deliver critical services in advanced predictive modeling, data governance, and fraud risk analytics. His initiative directly addresses the growing U.S. demand for data integrity and the need for specialized technical oversight in financial security operations. JL Data Dynamics is strategically located within the Research Triangle to provide U.S. financial institutions, fintechs, and healthcare providers with the sophisticated analytical infrastructure and strategic guidance necessary to mitigate risks and ensure economic resilience in an increasingly complex data-driven global economy.

According to the Federal Data Strategy[1] and the National AI Initiative, the robust application of data science and statistical methods constitutes a measurable component of U.S. economic competitiveness and national security. Mr. Lopes's proposed endeavor operates within this documented sector by providing structured analytical services and technology-integrated risk solutions to U.S. enterprises and research organizations. Through the application of over a decade of experience in large-scale data management and model optimization, his work supports operational efficiency, financial stability, and the delivery of high-quality statistical education in sectors that represent a substantial component of U.S. economic activity.

Once Mr. Lopes's classification is established, in accordance with the framework established in *Matter of Dhanasar*, we will demonstrate that:

- **His proposed endeavor has substantial merit and national importance,** particularly in strengthening U.S. financial security, enhancing data-driven decision-making, and fostering workforce development through specialized statistical training– **Section 3.1**;
- **He is exceptionally well-positioned to advance this endeavor,** supported by his master's degree, his ongoing Doctoral research, his professional registration with the Federal Council of Statistics (CONFE), and his recognized leadership in developing critical models for major financial institutions– **Section 3.2**; and
- **On balance, it is clearly in the interest of the United States to waive the job offer and labor certification requirements** to enable the immediate application of Mr. Lopes's specialized skills to enable the immediate application of Mr. Lopes's specialized skills to these pressing national economic and technological challenges – **Section 3.3**.

The evidence enclosed with this petition, including Mr. Lopes's academic evaluation, international course certifications from the University of Michigan and Johns Hopkins University, and the comprehensive Business Plan for JL Data Dynamics, will establish, by a preponderance of the evidence, that his presence in the United States will provide a significant benefit to the nation.

1. THE EB-2 CLASSIFICATION

1.1 ADVANCED DEGREE

To qualify as a member of the professions holding an advanced degree under the EB-2 category, the Petitioner must demonstrate possession of either a U.S. advanced degree or its foreign equivalent. Mr. Lopes fully meets the regulatory requirements of this classification through his academic credentials, which include a Master of Science (M.Sc.) in Numerical Methods in Engineering from the Federal University of Paraná (UFPR), as confirmed by the Academic Evaluation Report (Exhibit B).

[1] https://strategy.data.gov/

- Transcripts and the degree of Bachelor in Statistics *(Titulo de Bacharel em Estatistica)* granted by the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)*
- Transcripts and the Certificate *(Certificado)* for the completion of the Specialization Course of MBA in Business Intelligence, Knowledge Area: Information Technology *(Curso de Especialização em MBA em Business Intelligence, Área de Conhecimento: Tecnologia da Informação)* granted by the Positivo University *(Universidade Positivo-UP)*
- Transcripts and the degree of Master in Numerical Methods in Engineering *(titulo de Mestre em Métodos Numéricos em Engenharia)* granted by the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)*

The academic evaluation confirms that Mr. Lopes's **master's degree is equivalent to a U.S. Master of Science in Statistics** awarded by a regionally accredited institution in the United States (Exhibit B). In addition, Mr. Lopes holds a bachelor's degree in Statistics (2012) and an MBA in Business Intelligence (2014)**,** both of which have been evaluated as equivalent to their respective U.S. degrees. Currently, he is a Ph.D. Candidate in Numerical Methods, focusing his doctoral research on Bayesian Networks, a field at the cutting edge of modern Data Science and Artificial Intelligence.

As established by the regulations under 8 CFR § 204.5(k)(2), a beneficiary can satisfy the advanced degree requirement by holding a U.S. master's degree or higher (or a foreign degree evaluated to be the equivalent). Mr. Lopes's academic training across his Bachelor's, MBA, and master's programs provided him with advanced knowledge in Multivariate Analysis, Stochastic Processes, Predictive Modeling, and Computational Intelligence, core competencies that form the technical foundation of his proposed endeavor, JL Data Dynamics, in the United States.

Furthermore, while Mr. Lopes qualifies based on his master's degree, it is noteworthy that he also possesses over **12 years of progressive, post-baccalaureate experience** in the specialty. Pursuant to 8 CFR § 204.5(k)(2), even if he did not hold a master's degree, his Bachelor's degree followed by at least five (5) years of progressive experience would independently qualify him for this classification. With over a decade of high-level leadership in the financial and technology sectors, Mr. Lopes far exceeds the minimum requirements for the EB-2 preference.

Attached please find his Curriculum Vitae, Academic Evaluation, and Professional Evidence (Exhibits A and B), as summarized below:

- **2024 to Present – Data Science Consultant, STIX (GPA & RaiaDrogasil Group), Brazil (Full-time):** In his current role, Mr. Lopes leads the analytical intelligence for STIX's loyalty ecosystem, which encompasses over 13 million active members across the GPA and RaiaDrogasil retail networks. He is responsible for designing and implementing advanced statistical models for customer segmentation, behavioral analytics, and fraud prevention, directly influencing strategic decisions at one of Brazil's largest consumer loyalty platforms.

- **2023 to 2024 – Data Science III, Bradesco, Brazil (Full-time):** At one of Brazil's largest financial institutions, Mr. Lopes applied advanced statistical and machine learning

techniques to credit risk and fraud detection, contributing to the protection of a portfolio serving millions of customers nationwide.

- **2021 to 2024 – Senior Fraud and Risk Modeling Analyst / Senior Data Scientist, Boa Vista SCPC (Equifax), Brazil (Full-time):** At Boa Vista, one of Brazil's leading credit bureaus and an Equifax affiliate, Mr. Lopes developed and monitored predictive models for credit risk assessment and fraud detection, working with large-scale financial datasets to support the integrity of the national credit system.

- **2018 to 2021 – Fraud Analytics and Risk Modeling Analyst, ClearSale, Brazil (Full-time):** At ClearSale, a global leader in fraud prevention solutions, Mr. Lopes designed and deployed machine learning models for real-time transaction scoring and anomaly detection, protecting e-commerce and financial clients from sophisticated fraud schemes.

- **2015 to 2017 – Franchising Analyst, O Boticário, Brazil (Full-time):** At O Boticário, one of Brazil's largest cosmetics and retail franchise networks, Mr. Lopes applied data analysis and statistical modeling to support franchise performance evaluation and business intelligence initiatives.

- **2014 to 2015 – Senior IT Capacity Analyst, GVT, Brazil (Full-time):** At GVT, a major Brazilian telecommunications provider, Mr. Lopes contributed to IT capacity planning and data-driven infrastructure management, applying statistical methods to optimize network performance and operational efficiency.

- **2013 to 2014 – Credit Risk Analyst, HSBC, Brazil (Full-time):** At HSBC Brazil, Mr. Lopes developed credit risk models and statistical analyses to support portfolio management and regulatory compliance, working within one of the world's largest banking institutions.

- **2011 to 2013 – Risk Modeling Intern / Credit Risk Analyst Intern, HSBC, Brazil (Internship):** Mr. Lopes began his career at HSBC as a risk modeling intern, gaining foundational experience in credit scoring, statistical validation, and financial data analysis under the supervision of senior risk professionals.

Thus, **Mr. Lopes has demonstrated that he has significantly more than the minimum required 5 years of progressive post-baccalaureate experience** in his field of expertise. He qualifies as a member of the **advanced degree** professions, meeting the requirements for EB-2 preference.

Pursuant to 8 C.F.R. § 204.5(k)(3)(i)(B), a beneficiary can satisfy the advanced degree requirement by holding either a:

- U.S. master's degree or higher or a foreign degree evaluated to be the equivalent of a U.S. master's degree or higher; or
- U.S. bachelor's degree, or foreign degree evaluated to be the equivalent of a U.S. bachelor's degree, plus 5 years of progressive, post-degree work experience

Eligibility for the EB-2 category requires meeting the advanced degree criterion or the exceptional ability criterion, this petition is based on Mr. Lopes's qualifications as a professional with an advanced degree and confirming his eligibility for the EB-2 classification.

2. THE PROPOSED ENDEAVOR

Mr. Lopes's proposed endeavor consists of **supporting the application of advanced statistical modeling, machine learning, and fraud risk analytics to strengthen U.S. financial security and data infrastructure.** He intends to execute this endeavor through JL Data Dynamics, a data science and statistical consulting platform to be headquartered in Raleigh, North Carolina, serving financial institutions, fintechs, healthcare providers, and research organizations. As detailed in the Business Plan (Exhibit C.I), the endeavor will focus on advanced predictive modeling, data governance architecture, fraud risk analytics, decision intelligence systems, and applied data science training. Through these activities, Mr. Lopes will support U.S. organizations in navigating complex data environments with precision, security, and regulatory compliance.

The company's core mission is to translate massive, complex datasets into actionable insights and robust risk mitigation strategies that enhance organizational efficiency, safeguard financial integrity, and improve decision-making across high-priority U.S. sectors. By combining advanced Bayesian inference and machine learning with rigorous statistical governance, **JL Data Dynamics catalyzes the expansion of the U.S. data-driven economy, strengthening national cybersecurity and financial stability.**

According to the business plan (Exhibit C.I), JL Data Dynamics will provide services including:

- **Advanced Statistical Modeling and Machine Learning Solutions:** Development of custom predictive models, including regression analysis, clustering, and neural networks, to optimize business processes, enhance customer segmentation, and drive innovation in product development for U.S. enterprises.
- **Data Infrastructure and Governance Services:** Implementation of robust data architectures and governance frameworks that ensure data quality, privacy, and compliance with U.S. federal and state regulations, enabling firms to manage information assets as a strategic national resource.
- **Fraud Risk Analytics and Decision Intelligence:** Deployment of sophisticated anomaly detection systems and real-time risk scoring models designed to prevent financial fraud, mitigate credit defaults, and protect the integrity of the U.S. digital payment ecosystem.
- **Data Science Training and Applied Statistical Education:** Specialized coaching and mentorship programs focused on upskilling the U.S. workforce in modern analytical tools (SAS, R, Python) and statistical methodologies, building a pipeline of highly skilled professionals to meet the national demand for data expertise.

Media & Innovation Hub will meet the sustained demand for specialized audiovisual expertise in sectors of national relevance. The complexity of digital transformation, the increasing reliance on video-first communication for enterprise training and public information, and the need for U.S. businesses to remain competitive through compelling, accessible content underscore the necessity of such an endeavor. By positioning the firm between traditional production vendors and strategic communication partners, Mr. Lopes will provide the U.S. market with the tools needed to accelerate innovation diffusion, expand workforce capabilities, and strengthen cultural and informational competitiveness.

JL Data Dynamics will meet the sustained demand for specialized statistical and data science expertise in sectors of national relevance. The complexity of digital transformation, the increasing reliance on data-driven decision-making for enterprise security and public information, and the need for U.S. businesses to remain competitive through advanced analytics underscore the necessity of such an endeavor. By positioning the firm as a strategic technical partner, Mr. Lopes will provide the U.S. market with the tools needed to accelerate innovation, expand workforce capabilities, and strengthen financial and informational competitiveness.

Launching its operations in Raleigh, North Carolina, a strategically selected location within the Research Triangle, offering economic stability, proximity to major research universities, and a growing technology talent pipeline, JL Data Dynamics has a strategic roadmap for growth. The company's implementation plan includes a phased workforce expansion: beginning with a core team of: five (5) professionals] in Year 1 (including the General Manager & Senior Data Scientist, Lead Data Scientist, Machine Learning Engineer, Sales Representative, and Administrative Manager), scaling to: nine (9) in Year 2, and reaching: twenty-one (21) highly skilled positions by Year 5, including Senior Fraud Analytics Scientists, Data Architects, and Technical Trainers. This disciplined hiring strategy ensures capacity scales in alignment with market demand, creating sustainable, high-skill employment in the U.S. STEM economy.

6.3 Five-Year Personnel Plan Table

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Senior Data Scientist - Mr. José Evandeilton Lopes	1	1	1	1	1
Lead Data Scientist	1	1	2	2	2
Machine Learning Engineer	1	1	1	1	2
Data Engineer	0	1	1	1	1
Data Architect	0	1	1	1	2
Senior Fraud Analytics Scientist	0	0	1	1	2
Technical Trainer	0	1	2	2	2
Project Manager	0	1	1	2	2
Marketing and Communications Specialist	0	0	1	1	1
Sales Representative	1	1	1	2	3
Administrative Manager	1	1	1	1	1
Customer Service Representative	0	0	1	2	2
Total People	**5**	**9**	**14**	**17**	**21**

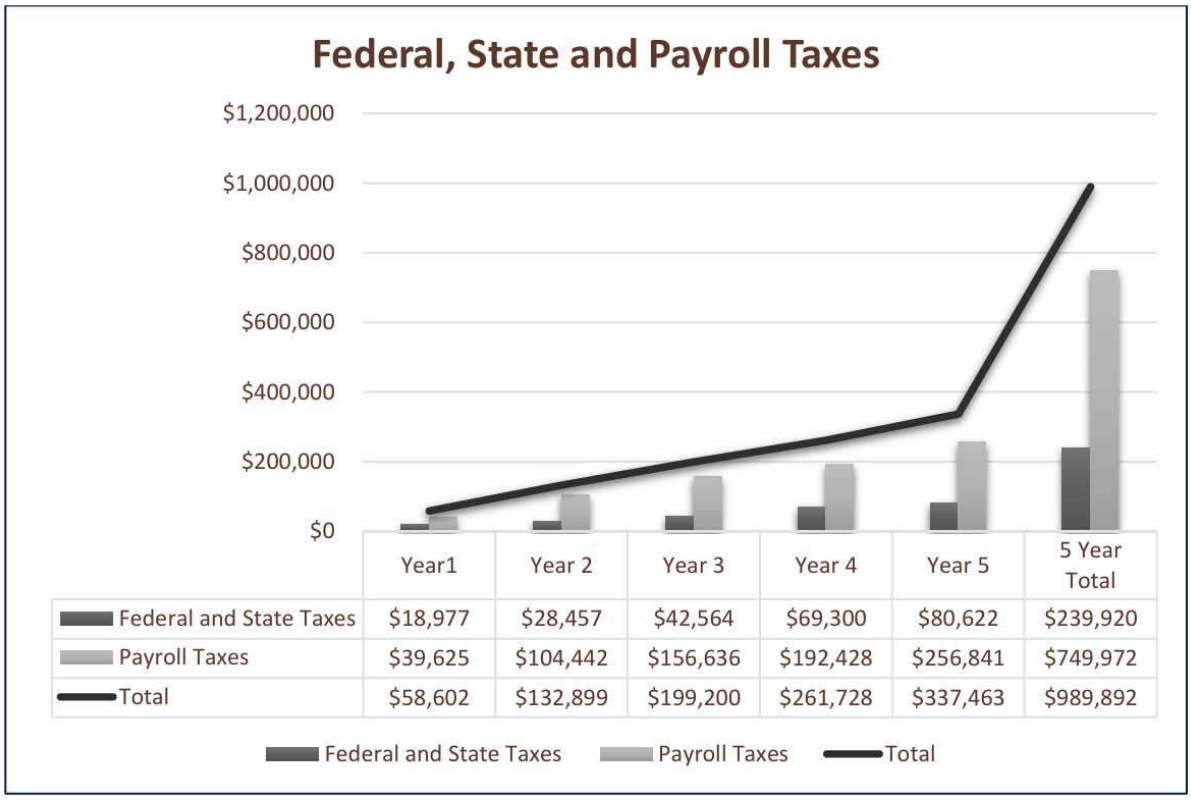
Furthermore, JL Data Dynamics' projected growth underscores its economic impact. According to the Business Plan (Exhibit C.I), company revenue is expected to grow from $588,000 in Year 1 to approximately $3.49 million ($3,493,602) in Year 5. Over the same period, gross margin is projected to increase from $540,960 (92.0%) in Year 1 to about $3.21 million ($3,214,114), maintaining a 92.0% gross margin. The company's strategy to establish a strong base in Raleigh and progressively extend its reach to other high-demand regions through remote analytical workflows and national client partnerships further underscores its potential to become a significant contributor to the U.S. economy in the professional, scientific, and technical services sectors.

Pro Forma Profit and Loss					
	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	$588,000	$1,420,020	$2,112,533	$2,661,792	$3,493,602
Direct Cost of Sales	$47,040	$113,602	$169,003	$212,943	$279,488
Other Costs of Sales	$0	$0	$0	$0	$0
Total Cost of Sales	$47,040	$113,602	$169,003	$212,943	$279,488
Gross Margin	$540,960	$1,306,418	$1,943,531	$2,448,849	$3,214,114
Gross Margin %	92.00%	92.00%	92.00%	92.00%	92.00%

JL Data Dynamics' business plan outlines significant job creation as a core element of the company's growth model. According to the national job multipliers published by the Economic Policy Institute (EPI)[2], 100 direct jobs in the "Computer system design and related services" industry generate a total of 283.4 total jobs (direct and indirect). Since Mr. Lopes will create : 21 direct jobs by the end of Year 5, the total number of indirect jobs to be generated in the same period will reach: 59, resulting in a total impact of 80 jobs in the U.S. economy. This growth is expected to generate meaningful contributions to both local employment in North Carolina and the broader national labor market in high-skill professional, scientific, and technical roles.

The company's projected financial performance will generate substantial public revenue contributions across multiple tax categories, including federal income tax, state business taxes, and employment-related obligations such as Social Security and Medicare. Over a five-year period, federal and state income taxes are projected to total approximately $239,920, while payroll taxes are expected to reach about $749,972, for a combined tax contribution of roughly $989,892 (Business Plan, Exhibit C.I). These projections reflect the firm’s expanding workforce and increasing compensation base and illustrate the substantial public revenue generated by JL Data Dynamics at the federal and state levels.

[2] https://www.epi.org/publication/updated-employment-multipliers-for-the-u-s-economy/



	Year1	Year 2	Year 3	Year 4	Year 5	5 Year Total
Federal and State Taxes	$18,977	$28,457	$42,564	$69,300	$80,622	$239,920
Payroll Taxes	$39,625	$104,442	$156,636	$192,428	$256,841	$749,972
Total	$58,602	$132,899	$199,200	$261,728	$337,463	$989,892

As the company scales and employs: twenty-one (21) high-skill professionals by Year 5, its growing payroll and operational expenditures will provide sustained support to both local and national tax systems. In addition, total direct payroll investment, together with ongoing operational expenditures in high-performance computing infrastructure, software licensing, and professional services, will generate secondary economic activity and indirect tax revenues through the firm's suppliers and service providers.

While headquartered in Raleigh, North Carolina, leveraging the region's robust innovation corridor and proximity to the Washington-Richmond-Raleigh corridor, JL Data Dynamics is designed for national scalability. Through remote analytical workflows and digital distribution, Mr. Lopes's endeavor will serve clients across the United States, contributing to the national data infrastructure and the competitiveness of the U.S. technology sector on a global scale.

In summary, JL Data Dynamics will address urgent needs in financial security, data governance, workforce development, and AI-driven innovation, supporting essential private-sector activities while simultaneously contributing to economic growth through sustained business development and job creation. The company's vision and phased expansion roadmap reflect a forward-looking approach to the U.S. data economy and digital competitiveness. Additional information regarding the operational strategy and projected contributions to national interests can be found in the attached business plan (Exhibit C.I).

3. NATIONAL INTEREST WAIVER

Framework Under *Matter of Dhanasar*

The national interest waiver (NIW) provides a pathway for qualified individuals to forgo the traditional labor certification and job offer requirements when their contributions promise significant benefits to the United States. Under section 203(b)(2)(B)(ii) of the Immigration and

Nationality Act, and pursuant to 8 C.F.R. § 204.5(k)(4)(ii), USCIS may waive these requirements when it is determined that doing so is in the national interest.

In *Matter of Dhanasar*, 26 I&N Dec. 884 (AAO 2016), USCIS introduced a modernized, three-prong framework for evaluating NIW eligibility. This framework requires that the petitioner demonstrate:

1. The First Prong – endeavor has substantial merit and national importance – reviews the importance of the field and the specific endeavor the petitioner aims to undertake.
2. The Second Prong– the individual is well-positioned to advance the endeavor – reviews the beneficiary's credentials.
3. The Third Prong – beneficial to the U.S. to waive the job offer and labor certification requirement – balances the national interest.

Mr. Lopes clearly satisfies all three prongs of the *Dhanasar* framework. As demonstrated in the sections that follow, his qualifications as a Master of Science in Statistics, his extensive professional experience in high-impact fraud prevention and risk modeling, and the national relevance of his proposed endeavor fully justify a waiver of the labor certification and job offer requirements.

Mr. Lopes's proposed endeavor centers on establishing and scaling JL Data Dynamics, an integrated data science and statistical consulting firm headquartered in Raleigh, North Carolina. The endeavor is designed to translate complex datasets into robust risk mitigation strategies and actionable intelligence for innovation-driven organizations, including financial institutions, fintechs, and healthcare providers. His work lies at the intersection of advanced statistical modeling, financial security, and data governance, areas of clear national relevance given the United States' focus on combating financial crimes, ensuring AI safety, and maintaining the integrity of the national digital infrastructure.

Requiring labor certification in this context would be counterproductive to the national interest because Mr. Lopes's work is highly specialized, technical, and entrepreneurial, requiring the flexibility to provide services to multiple sectors and critical infrastructure rather than being tied to a single employer. His proposed endeavor depends on the agility to lead complex analytical projects, implement advanced Bayesian networks for anomaly detection, and respond to shifting threats in the global financial landscape. His record of achievement, including senior roles at major institutions such as: **STIX, Bradesco, Boticário, GVT, ClearSale, HSBC and Boa Vista (SCPC)** demonstrates his ability to execute high-stakes projects and generate measurable value that is directly transferable to the U.S. market.

Furthermore, Mr. Lopes's endeavor aligns with federal objectives related to strengthening the digital economy and enhancing the national security of U.S. financial systems. By establishing JL Data Dynamics, Mr. Lopes intends to contribute significantly to economic activity and job creation, with a projected five-year hiring plan to employ: 21 high-skill STEM professionals in Raleigh, NC. His work is consistent with U.S. policy priorities, such as the National Cybersecurity Strategy[3] and the National AI Initiative Act[4], aimed at attracting global talent capable of applying advanced mathematical methodologies to protect the nation's economic interests.

[3] https://bidenwhitehouse.archives.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf
[4] https://www.congress.gov/bill/116th-congress/house-bill/6216

As will be detailed in the following sections, Mr. Lopes satisfies all three prongs of the *Dhanasar framework:*

- **Substantial Merit and National Importance:** The proposed endeavor, through the launch of JL Data Dynamics, provides specialized statistical modeling, fraud risk analytics, and data governance. This project possesses substantial merit and clear national importance, given its role in supporting U.S. financial integrity, protecting consumer data, and fostering the growth of the data-driven economy.

- **Well-Positioned to Advance the Endeavor:** Mr. Lopes is exceptionally well-positioned to lead this project, bringing over 12 years of progressive experience in data science and risk management. His background includes leadership in implementing large-scale predictive models for multinational financial organizations and achieving measurable results in fraud reduction and portfolio growth.

- **On Balance, Beneficial to Waive Labor Certification:** On balance, granting the waiver is in the best interest of the United States, as Mr. Lopes's project aims to create new job opportunities for highly skilled STEM professionals, generate approximately $989,892 in total tax contributions over five years, and strengthen the operational security of U.S. organizations without displacing American workers. His entrepreneurial initiative is designed to create, rather than fill, a position.

Accordingly, this petition demonstrates through documentary evidence, expert letters, and the attached Business Plan (Exhibit C.I) that Mr. Lopes's proposed endeavor fully satisfies the *Matter of Dhanasar* framework and qualifies for a National Interest Waiver.

3.1 <u>First PRONG:</u>
The Proposed Endeavor has Substantial Merit and National Importance

Under *Matter of Dhanasar*, the "national importance" of an endeavor is not limited by geographic scope but is assessed by its potential to address issues of national relevance. Local or regional projects can qualify if they tackle problems affecting the country at large.

Mr. Lopes's proposed endeavor consists of pursuing his professional activities in the fields of applied statistics, data science, and financial risk modeling through the establishment and operation of JL Data Dynamics in Raleigh, North Carolina. The proposed endeavor has clear substantial merit and national importance, as it addresses matters of national relevance related to the protection of the U.S. financial system, the mitigation of multi-billion dollar fraud losses, and the strengthening of the national data infrastructure through advanced analytical oversight.

Through JL Data Dynamics, Mr. Lopes proposes to deliver advanced, strategy-driven statistical services that support the optimization of risk assessment, the reduction of financial fraud, and the enhancement of data governance for U.S. organizations. These activities directly impact sectors of national relevance, including the U.S. financial services industry, the digital economy, and the global competitiveness of American fintechs and healthcare providers. By applying rigorous Bayesian networks and machine learning methodologies to the risk sector, Mr. Lopes provides specialized technical oversight that transforms raw data into strategic assets, enhancing the overall security and stability of the U.S. business environment.

The proposed endeavor aligns with U.S. national interests by strengthening the domestic financial security infrastructure, supporting the National AI Initiative Act of 2020[5], and fostering economic growth through high-skill STEM job creation. By providing specialized consultancy and predictive modeling that reduces the cost and impact of fraudulent activities, which, according to the Federal Trade Commission (FTC), resulted in over $10 billion in losses in 2023, Mr. Lopes's work promotes economic continuity, financial inclusion, and long-term sustainable development for U.S. companies and institutions.

Furthermore, JL Data Dynamics serves as a catalyst for innovation in Raleigh, North Carolina, by establishing a pipeline for trained data science professionals within the Research Triangle, thereby reinforcing the regional and national STEM workforce and strengthening the broader technology-driven economy. His work is consistent with the National Cybersecurity Strategy[6] (2023), which emphasizes the need for robust data integrity and the use of advanced analytics to protect critical economic infrastructure from sophisticated threats.

Accordingly, Mr. Lopes's proposed endeavor satisfies the first prong of the *Matter of Dhanasar* framework, as it is grounded in a field of substantial merit and carries clear implications for national importance extending beyond any single geographic region..

3.1.1 BUSINESS PLAN

A detailed description of the proposed endeavor and why it is of substantial merit:

Under Mr. Lope's leadership, JL Data Dynamics is designed to support the analytical capacity risk management, and data governance of U.S. organizations, focusing on financial institutions, fintechsm healthcare providers, and research entities. Its core objective is to deliver targeted solutions in advanced statistical modeling, machine learning, fraud risk analytics, and data infrastructure governance for organizations operating in an increasingly data-intensive and digitally interconnected economy.

The business plan (Exhibit C.I) explains the well-documented market demand for these services. This need is driven by the sustained growth in digital financial transactions, the expansion of AI-enable decision systems, and the requirement for especialized expertise to ensure that U.S. Instituitions manage data securely and in line with regulatory expectations. The endeavor's solutions are designed to strengthen the global positioning of U.S. organizations, reduce losses from fraud and credit defaults, and improve the scalability and reliability of their decision-making infrastructures.

Several structural factors in the U.S. context drive sustained demand for the services offered by JL Data Dynamics:

- **Digital Transformation, Data Proliferation, and AI Adoption:** U.S. organizations face the imperative to adopt AI and data-driven tools across credit, fraud prevention, and customer analytics. Federal policy documents, including the National AI Initiative Act of 2020[7] and the National Cybersecurity Strategy[8] (The White House), emphasize the need for robust data governance and trustworthy AI systems to protect critical infrastructure and maintain U.S. competitiveness. Many institutions, particularly small and mid-sized banks, fintechs, and healthcare providers, lack in-house capacity to design, validate, and monitor complex statistical and machine learning models. JL Data Dynamics will provide senior-

[5] https://www.congress.gov/bill/116th-congress/house-bill/6216
[6] https://bidenwhitehouse.archives.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf
[7] https://www.congress.gov/bill/116th-congress/house-bill/6216
[8] https://bidenwhitehouse.archives.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf

level expertise to implement scalable analytical strategies, directly supporting objectives in risk management, compliance, and operational efficiency.

- **Financial Fraud, Consumer Protection, and Economic Stability:** According to the Federal Trade Commission (FTC), U.S. consumers reported more than $10 billion in fraud losses in 2023, the highest on record, reflecting both the scale of the digital economy and the sophistication of fraudulent schemes. These losses affect not only individuals, but also the stability and trustworthiness of the broader financial system. By offering advanced fraud risk analytics, anomaly detection systems, and statistically sound monitoring frameworks, JL Data Dynamics aims to help U.S. institutions reduce fraud-related losses, strengthen consumer protection, and preserve confidence in digital commerce and electronic payments.

- **Data Governance, Regulatory Compliance, and Critical Infrastructure:** Federal guidance, including the Federal Data Strategy[9] and the National Institute of Standards and Technology (NIST) frameworks for data and cybersecurity, underscores that data must be managed as a strategic asset, with appropriate safeguards, quality controls, and documentation. Many organizations struggle to operationalize these principles in practice, particularly when integrating multiple data sources and deploying AI models at scale. JL Data Dynamics is structured to design and implement data architectures, documentation standards, and statistical validation procedures that align with these federal priorities, enabling institutions to meet regulatory expectations while leveraging data for innovation.

- **STEM Workforce Development and Advanced Analytical Skills:** Reports from the U.S. Bureau of Labor Statistics (BLS) project continued strong growth in occupations such as statisticians, data scientists, and mathematical scientists, reflecting sustained national demand for high-level analytical skills. JL Data Dynamics incorporates a dedicated line of services in data science training and applied statistical education, providing hands-on instruction in tools such as SAS, R, and Python for professionals in finance, healthcare, and related sectors. By doing so, the company contributes to expanding the pool of qualified STEM professionals available to U.S. employers and supporting the broader innovation ecosystem.

For these reasons, JL Data Dynamics will provide high-impact analytical, risk management, and data governance solutions. Under Mr. Lopes's leadership, the company will leverage more than a decade of progressive experience in credit risk modeling, fraud prevention, and large-scale data analysis, including his work for major institutions such as STIX, Bradesco, ClearSale, and Boa Vista/Equifax. His successful track record in building and monitoring models that protect billions of dollars in portfolios and transactions demonstrates his ability to address a well-defined market opportunity in high-level data science services that combine advanced statistical expertise with robust technical execution.

Industry research and federal policy sources consistently highlight the strategic importance of data and analytics for U.S. competitiveness. The National AI Initiative Office and NIST stress the need for reliable, explainable, and well-governed AI systems, while agencies such as the FTC and the Department of the Treasury emphasize the importance of combating fraud, money laundering, and illicit finance through improved data analysis and risk modeling. Mr. Lopes's proposed enterprise operates squarely within this documented national policy environment by providing structured

[9] https://strategy.data.gov/

modeling workflows, rigorous validation, and ongoing monitoring designed to improve operational resilience and security for U.S. organizations.

JL Data Dynamics also holds substantial merit through its potential economic contributions. According to the Business Plan (Exhibit C.I), company revenue is expected to grow from $588,000 in Year 1 to approximately $3,493,602 in Year 5. Over the same period, gross margin is projected to increase from $540,960 (92.0%) to about $3,214,114 (92.0%), reflecting a sustainable, high-value business model. In parallel, the firm plans to expand its workforce from 5 professionals in Year 1 to 21 full-time positions by Year 5, creating high-skilled jobs in the professional, scientific, and technical services sector. As detailed in the tax projections, the company is expected to contribute approximately $239,920 in federal and state income taxes and $749,972 in payroll taxes over five years, for a total of about $989,892 in tax contributions.

Finally, as a Statistics and Data Science professional applying advanced technical methodologies, Mr. Lopes leads a technology-intensive analytical endeavor. His work integrates advanced statistical theory, Bayesian networks, machine learning, big data processing, and structured data governance systems that require specialized mathematical and computational proficiency. His academic background is formally classified under:

- **27.0501 – Statistics, General:** Encompasses the study and application of probability theory, statistical inference, and data analysis methodologies. This classification reflects Mr. Lopes's role in designing and validating complex models for credit risk and fraud detection.

- **30.7001 – Data Science, General:** Focuses on the integration of statistics, computer science, and domain knowledge to extract actionable insights from large datasets. This aligns with Mr. Lopes's extensive experience in building and deploying machine learning solutions in high-volume financial and retail environments.

These classifications reflect the technology-intensive nature of his field and underscore its relevance to the modernization of U.S. financial infrastructure, data systems, and AI-driven decision-making. The USCIS Policy Manual recognizes the importance of innovation and technological advancement in areas that strengthen U.S. competitiveness. Mr. Lopes's proposed endeavor directly contributes to these objectives by integrating advanced statistical and data science methodologies into mission-critical environments across the U.S. economy.

3.1.2 EVIDENCE OF ENDEAVOR'S MERIT

National or even global implications within a particular field:

Demonstrating the national importance of Mr. Lopes's proposed endeavor, JL Data Dynamics, involves showing its broader implications beyond its immediate business operations. The company's mission and activities directly support U.S. efforts to strengthen financial security, elevate data governance standards, and reinforce the analytical infrastructure that underpins critical economic sectors, including banking, fintech, healthcare, and e-commerce. This is supported by documentary evidence, including technical analyses and market context, provided in the business plan (Exhibit C.I).

As detailed in previous sections and in the attached business plan (Exhibit C.I), JL Data Dynamics is designed to address a critical gap in specialized, strategy-oriented statistical and data science support for Small and Medium-sized Enterprises (SMEs), financial institutions, and healthcare organizations. Its services are designed to help organizations overcome analytical barriers, reduce

losses from fraudulent activities, and improve decision-making through high-quality predictive modeling, Bayesian network analysis, and AI-enabled workflow optimization.

Federal and industry stakeholders repeatedly emphasize the urgency of digital transformation and the role of high-quality data analytics in maintaining U.S. competitiveness. The increasing complexity of digital financial platforms and the shift toward automated decision systems raise the technical demand for statistical expertise that can be applied to risk planning, fraud detection, and applied machine learning. JL Data Dynamics is structurally aligned with these priorities by providing applied data solutions that support data-informed strategy implementation, compliance readiness, and operational efficiency.

Through technical assessments, risk modeling, and advanced analytical infrastructure development, JL Data Dynamics also contributes to capacity building in organizational data integrity. Its work supports the adoption of consistent methods for fraud detection, credit risk assessment, and regulatory compliance across projects that influence consumers, patients, and financial markets. These activities help reduce economic uncertainty, improve institutional accountability, and raise the baseline of technical quality in the U.S. financial and healthcare analytics landscape.

Thus, the impact of JL Data Dynamics extends beyond internal business metrics. It represents an initiative with direct implications for economic stability, the continuity of essential financial services, and the long-term digital resilience of U.S. enterprises. By addressing systemic vulnerabilities associated with inefficient modeling workflows, fragmented data architectures, and rising financial fraud, the company contributes to safeguarding the economic and informational assets that are foundational to U.S. leadership in the global financial system.

The National Importance of Mr. Lopes's endeavor is underscored by its alignment with the strategic interests of the U.S. Department of the Treasury and the Federal Trade Commission (FTC) in combating financial fraud and ensuring market reliability. Furthermore, his focus on data integrity and healthcare analytics supports the missions of agencies such as HHS and the National AI Initiative Office, reinforcing national priorities related to secure and responsible use of data. By providing high-level analytical infrastructure that mirrors the technical standards of major U.S. financial institutions, Mr. Lopes's endeavor serves a clear and urgent national interest in economic clarity and statistical reliability.

Led by Mr. Lopes, JL Data Dynamics is purposefully structured to support institutions that depend on reliable analytical infrastructure, including U.S. banks, fintechs, healthcare systems, and professional service firms. Through specialized statistical modeling strategies and AI-driven efficiency, the company is positioned to contribute to broader U.S. efforts to modernize the digital economy.

Key points detailing why Mr. Lopes's endeavor is of national importance:

- **Strengthening Financial Integrity and Market Reliability:** JL Data Dynamics focuses on protecting commercial and consumer interests through standardized statistical modeling and strategic risk management.

  National importance: Strengthening the ability of U.S. financial entities to detect fraud helps prevent market destabilization, reduces operational losses, and supports sustainable economic growth.

- **Reducing Inefficiency in Applied Data Workflows:** The endeavor addresses hazards such as high fraud losses and fragmented analytical pipelines that compromise organizational resilience.

  National importance: Proactive analytical optimization reduces financial waste for SMEs and fintechs, supports the continuity of essential services, and protects the vibrancy of the U.S. digital economy.

- **Supporting Resilience of Healthcare and Financial Infrastructure:** Major risk management and clinical analytics projects require accurate and consistent statistical methods to be effective.

  National importance: Better data governance in health and finance strengthens community outcomes, reduces the "information gap," and improves the reliability of services that citizens depend on.

- **Alignment with National AI and Data Management Priorities:** Mr. Lopes's work falls within recognized Statistics and Data Science fields (CIP Codes 27.0501 and 30.7001).

  National importance: AI-driven, data-centric infrastructure enhances U.S. competitiveness by modernizing how information is processed, validated, and secured.

The business plan provides market evidence showing that JL Data Dynamics is positioned to meet sustained demand in a strategically selected location. As documented in Exhibit C.I, the company will be headquartered in Raleigh, North Carolina, within the Research Triangle, one of the most important data, research, and technology clusters in the United States. Raleigh was chosen for its proximity to top universities, major financial firms, and a rapidly expanding innovation ecosystem. The region's growth directly drives recurring demand for advanced data science services.

The national importance is further evidenced by the scale of fraud losses and the strategic weight of the U.S. financial digital economy. According to the Federal Trade Commission, financial fraud in the United States surpassed $10 billion in 2023, signaling a critical national vulnerability (Exhibit B). JL Data Dynamics is strategically positioned to serve high-impact segments such as Financial Services, Healthcare, and Retail Analytics, where effective statistical modeling and machine learning are essential to fraud prevention, operational efficiency, and consumer protection. By addressing the analytical needs of these sectors, Mr. Lopes's work supports the resilience and competitiveness of critical U.S. economic infrastructure.

JL Data Dynamics is further positioned to support this evolving analytical economy by enabling organizations to implement professional, compliant, and scalable statistical models. Through structured modeling methodologies, AI-enabled analytical workflows, and robust data governance, the company improves operational efficiency, reduces fraud-related losses, and enhances institutional transparency and resilience.

In this context, the market evidence in Exhibit C.I supports the national importance of the endeavor because the underlying drivers are structural and long-term. The continued expansion of digital financial platforms, enterprise AI adoption, and the need for data-driven risk mitigation create sustained demand for specialized statistical services. As demonstrated in Exhibit C.I, JL Data Dynamics' headquarters in Raleigh, North Carolina, provides a strategic base for scalable operations serving clients nationally through remote analytical workflows.

In conclusion, JL Data Dynamics, led by Mr. Lopes, addresses nationally relevant needs tied to financial security, data integrity, and workforce development. The market analysis and financial

projections in Exhibit C.I provide quantitative support that the endeavor operates in a high-demand sector with measurable revenue growth from $588,000 in Year 1 to $3.49 million by Year 5, and job creation reaching 21 full-time professionals. These factors reinforce that the endeavor has substantial merit and national importance under the first prong.

3.1.3 ENDEAVOR'S IMPACT

The proposed endeavor has significant potential to employ U.S. workers:

This is one of the most important factors when assessing national importance because there is no room for interpretation. The precedent decision, *Matter of Dhanasar,* expressly includes the significant potential to employ U.S. workers or other substantial positive economic effects as determinative factors of national importance.

Under the guidance of its founder and CEO, Mr. Lopes, JL Data Dynamics is positioned to make a substantial contribution to U.S. employment through both direct and indirect job creation. As set forth in the company's business plan, by the end of its fifth year of operations, JL Data Dynamics is projected to grow to a team of 21 (twenty-one) highly skilled professionals. This expansion will be driven by Mr. Lopes's strategic leadership in the statistics, data science, and financial security sectors.

Beyond direct hiring, the proposed endeavor is projected to generate a total economic impact of approximately $10.8 million over its first five years of operation. This figure represents the cumulative effect of direct payroll (projected at $5.1M), operational expenditures, tax contributions, and the broader stimulation of the U.S. data and analytical economy.

JL Data Dynamics is expected to engage U.S.-based professionals in roles such as Data Scientists, Statistical Analysts, Machine Learning Engineers, Data Governance Specialists, and Business Intelligence Consultants. These positions involve advanced technical expertise and operate within the high-growth professional, scientific, and technical services sectors.

In addition to direct employment, Mr. Lopes's endeavor includes a strong workforce development component. JL Data Dynamics plans to implement training and upskilling programs to prepare U.S. workers in areas such as Bayesian network modeling, AI-enabled fraud detection, and strategic data governance. These initiatives will contribute to strengthening the U.S. analytical talent pool, in line with national objectives to build domestic capacity in critical data technologies.

When evaluating the broader economic impact of job creation, it is essential to consider not just the direct positions generated by an enterprise, but the indirect and induced jobs supported across related sectors. A standard method for quantifying this extended impact is the use of job multipliers, which reflect how a primary business stimulates activity throughout its supply chain and local economy. For a specialized firm like JL Data Dynamics, this ripple effect is significant, as its operations require ongoing engagement with U.S.-based technology providers, cloud infrastructure manufacturers, and professional service firms.

Applying established economic principles regarding indirect and induced employment effects, the creation of 21 direct, high-skilled positions by year five under Mr. Lopes's leadership is expected to support substantial additional employment across the U.S. economy. As detailed in the company's Business Plan (Exhibit C.I), the endeavor adopts a realistic multiplier to project the support of at least 59 additional indirect jobs. These effects include roles in adjacent sectors such

as specialized software development, cybersecurity infrastructure maintenance, professional training services, and local service industries that benefit from sustained analytical activity and employee expenditures. This quantifiable economic ripple effect further satisfies the evaluative criteria established in *Matter of Dhanasar* regarding the potential to generate substantial positive economic effects.

Employment multipliers per 100 direct jobs, all private-sector industries

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
	Professional, scientific, and technical services				
125	Legal services	100.0	89.2	111.3	200.5
126	Accounting, tax preparation, bookkeeping, and payroll services	100.0	52.0	81.3	133.4
127	Architectural, engineering, and related services	100.0	90.0	114.1	204.1
128	Specialized design services	100.0	67.5	97.4	164.9
129	Computer systems design and related services	100.0	134.1	149.3	283.4
130	Management, scientific, and technical consulting services	100.0	91.1	116.5	207.6
131	Scientific research and development services	100.0	519.3	323.7	842.9
132	Advertising, public relations, and related services	100.0	460.9	270.7	731.6
133	Other professional, scientific, and technical services	100.0	70.8	83.6	154.3

This broader employment impact further satisfies the core evaluative criteria established in *Matter of Dhanasar*. The significance lies in the documented potential and probability of job creation within a high-impact professional sector. By establishing its headquarters in Raleigh, North Carolina, a strategic technology hub within the Research Triangle, JL Data Dynamics will embed itself in a cluster that fosters data innovation, strengthens the regional tech economy, and contributes to the overall economic growth of the United States.

The endeavor impacts a matter that a government entity has described as having national importance, or its a subject of national importance:

Mr. Lopes's proposed effort through JL Data Dynamics is directly aligned with U.S. government priorities in financial security, data integrity, and the AI-driven economy. Federal policy documents and the USCIS Policy Manual underscore the need to strengthen U.S. leadership in critical and emerging technologies, including advanced data analytics and secure financial systems.

JL Data Dynamics' mission is to provide advanced statistical strategy and risk modeling support to organizations that drive U.S. innovation. By helping U.S. entities—including financial institutions and healthcare providers—optimize their data governance and fraud prevention, the company contributes to national policy objectives identified as critical to U.S. economic strength and financial competitiveness.

In conclusion, Mr. Lopes's initiative addresses issues that U.S. government entities have identified as matters of national importance: the growth of the digital economy, the development of a robust analytical workforce, and the enhancement of U.S. resilience against financial fraud. The endeavor's alignment with these federal priorities, together with its concrete plans for job creation and economic impact, strengthens the case that Mr. Lopes's work satisfies the national importance prong under *Matter of Dhanasar*.

3.2 Second PRONG:
The Self-Petitioner is Well-Positioned to Advance the Proposed Endeavor in the United States

The second prong under *Matter of Dhanasar* requires demonstrating that the Petitioner is well positioned to advance the proposed endeavor. This does not demand proof of guaranteed success, but rather credible evidence of qualifications, experience, and progress made toward implementation.

Mr. Lopes's academic background in Statistics, his master's degree evaluated as a U.S. Master of Science in Statistics, and more than twelve (12) year of progressively responsible experience in data science, predictive modeling, financial risk analysis, and fraud prevention clearly establish that he is exceptionally well positioned to lead and expand JL Data Dynamics in the United States. His sustained record of leadership in high-stakes analytical environments and his success in developing machine learning models for major financial and retail institutions provide a solid foundation for the execution of his proposed endeavor in the American data, financial, and analytical services markets.

3.2.1 EDUCATION, SKILLS, KNOWLEDGE, AND RECORD OF SUCCESS:

Mr. Lopes is a STEM professional **exceptionally well** qualified to advance his proposed endeavor in the United States based on **his strong academic credentials and long-standing professional engagement with advanced statistical modeling and aplied data science**. He holds a bachelor's degree in Statistics (2012) and a Master of Science in Numerical Methods in Engineering (2021), both awarded by the **Federal University of Paraná (UFPR)**[10], one of Brazil's most respected and research-intensive federal institutions. His master's degree has been officially evaluated as the equivalent of a U.S. Master of Science in Statistics (Exhibit B). This academic foundation at UFPR provided him with advanced, graduate-level training in Multivariate Analysis, Stochastic Processes, Bayesian Methods, and Computational Intelligence, core competencies that form the mathematical and technical backbone of his proposed U.S. endeavor, JL Data Dynamics.

He is also **a Ph.D. Candidate in Numerical Methods** at the Federal University of Paraná (UFPR), with doctoral research focused on **Bayesian Networks and probabilistic modeling.** This area lies at the intersection of statistics, artificial intelligence, and computational mathematics, and has direct application to fraud detection, credit risk modeling, anomaly identification, and uncertainty-based decision systems. This level of specialization reinforces his technical authority and aligns directly with the advanced statistical frameworks that underpin JL Data Dynamics.

Beyond his formal degrees, Mr. Lopes has consistently pursued **specialized technical development through elite international programs.** He has completed **more than a dozen professional certifications from top-tier U.S. institutions,** demonstrating a continuous commitment to methodological excellence and direct integration with American academic and professional standards. These credentials validate his mastery of the tools and frameworks required to lead high-impact data initiatives in the United States, including:

- **Applied Data Science with Python Specialization – University of Michigan:** Advanced training in machine learning, information visualization, and social network analysis using industry-standard computational frameworks.

[10] https://ufpr.br/apresentacao/

- **Data Science Specialization – Johns Hopkins University:** Comprehensive specialization covering statistical inference, regression models, and data product development, provided by one of the world's leading research universities.

- **Executive Education and Technical Certifications – University of California System:** Advanced coursework in data science tools and methodologies, reinforcing his ability to implement scalable analytical solutions.

- **Tableau Desktop Specialist and Visual Analytics – Tableau/Salesforce:** Professional certification in advanced data visualization and storytelling, essential for translating complex statistical outputs into actionable business intelligence for executive decision-makers.

These programs provided Mr. Lopes with advanced training in **Applied Machine Learning, Python for Data Analysis, Uncertainty Modeling, and Strategic Data Visualization**. By earning these credentials from premier American institutions, Mr. Lopes has proven that his technical command is fully aligned with the rigorous standards of the U.S. technology and financial sectors. This proactive engagement with the American academic ecosystem further evidences his preparedness to operate within the competitive landscape of the United States and lead JL Data Dynamics with global-level expertise.

Mr. Lopes's record of success is defined by **more than a decade of progressively increasing responsibility in high-impact analytical environments.** His most recent position as Data Science Consultant at **STIX[11],** a national-scale loyalty and analytics company serving the GPA Group[12] and RaiaDrogasil[13] (two of the largest retail networks in Latin America), demonstrates his leadership **in managing data for more than 13 million active users. STIX operates in a highly competitive and data-intensive ecosystem**, and his work there involved designing advanced machine learning models for customer behavior analysis, fraud mitigation, and strategic segmentation, expertise directly transferable to the U.S. market.

Prior to STIX, Mr. Lopes served as a **Data Science III at Bradesco[14],** one of the largest financial institutions in the Americas, with **more than 70 million clients.** At Bradesco, he developed **credit risk and fraud prevention** models using large-scale financial datasets. His contributions supported essential banking operations and regulatory compliance environments, demonstrating his capacity to work within one of the most stringent and technically demanding sectors of the economy.

Mr. Lopes also served as a **Senior Fraud and Risk Modeling Analyst at Boa Vista SCPC**, a major Brazilian credit bureau acquired by Equifax[15], one of the largest credit reporting agencies in the United States. Working in a company aligned with U.S. credit reporting standards exposes him directly to the analytical requirements expected in the American financial system. His role at Boa Vista involved the development and maintenance of predictive models that supported national-level credit decision processes.

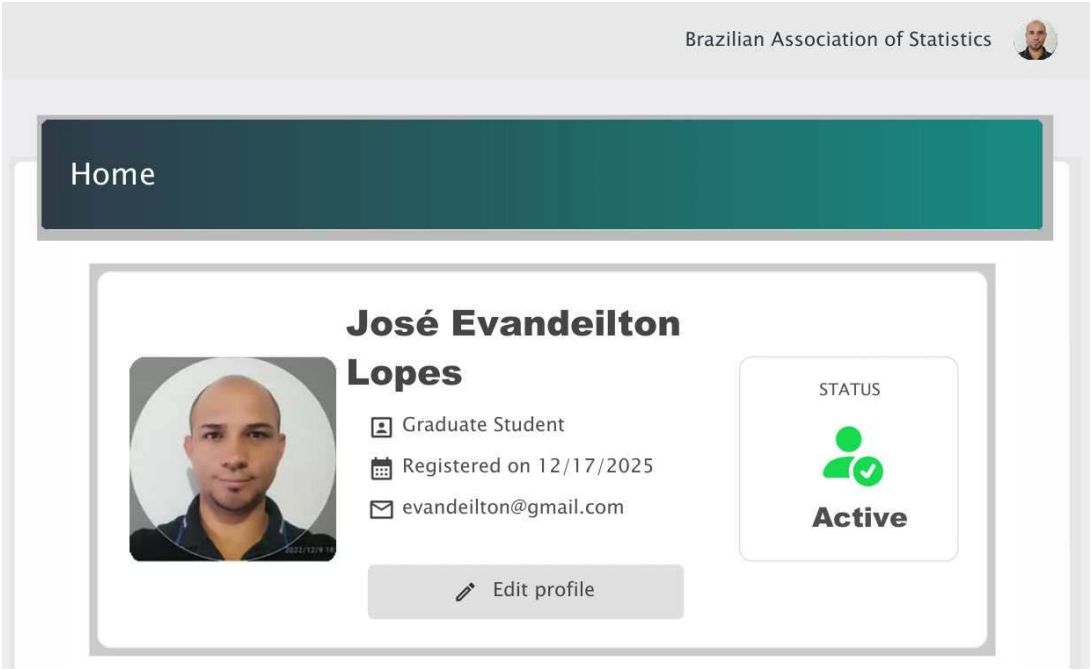
[11] https://www.soustix.com.br/sobre-a-stix
[12] https://www.gpabr.com/conheca-o-gpa/
[13] https://www.drogaraia.com.br/nossa-historia
[14] https://banco.bradesco/html/classic/sobre/
[15] https://www.equifax.com.br/sobre-a-equifax/quem-somos

Additionally, Mr. Lopes worked as a Fraud Analytics and Risk Modeling Analyst at **ClearSale**[16], one of the world's most recognized companies in fraud prevention for e-commerce and financial transactions, including clients in the U.S. and Latin America. ClearSale is known for operating at the intersection of machine learning and human-in-the-loop decision systems, and Mr. Lopes's work there in anomaly detection and real-time risk scoring demonstrates his ability to operate in complex, dynamic environments that are directly relevant to U.S. financial infrastructure

Earlier in his career, he held analytical roles at HSBC[17], GVT, and O Boticário[18], all large enterprises operating at national scale in banking, telecommunications, and retail, respectively. These roles provided him with multidisciplinary exposure to risk modeling, capacity planning, data governance, and business intelligence across diverse economic sectors.

This extensive professional trajectory demonstrates a clear and consistent progression toward senior roles in data science and statistical modeling, marked by increasing technical responsibility, leadership in complex analytical projects, and oversight of high-impact machine learning deployments.

Mr. Lopes's professional standing is further evidenced by his active membership in the Brazilian Statistical Association (ABE)[19], as documented by his official member profile and the organization's Statute (Exhibit B). His status as an Active Member, registered since December 17, 2025, confirms his integration into Brazil's premier scientific and professional body for statisticians. According to the ABE Statute (Estatuto ABE), membership is reserved for individuals who demonstrate formal academic training or significant professional contributions to the field of statistics, ensuring that all members adhere to high standards of technical competence and ethical conduct.



[16] https://br.clear.sale/sobrenos
[17] https://www.business.hsbc.com.br/en-gb/why-hsbc
[18] https://www.grupoboticario.com.br/sobre-o-grupo-boticario/
[19] https://www.redeabe.org.br/

This affiliation, coupled with his formal professional credentialing under the Federal Council of Statistics (CONFE)[20], the federal regulatory body responsible for the oversight and licensing of the statistical profession in Brazil. Mr. Lopes's official professional registration at CONFE under license number 11452, as documented in his professional credential (Exhibit B), underscores his recognition within a strictly regulated professional community. As the federal authority that mandates rigorous ethical and technical standards for the practice of statistics, CONFE's licensure confirms his technical authority and professional standing. Such recognition is fully consistent with the expectations of the U.S. data science and statistical sectors, reinforcing the legitimacy of his expertise and his commitment to the continuous advancement of the field, further positioning him to lead JL Data Dynamics with the highest level of professional credibility in the United States.


FEDERAL COUNCIL OF STATISTICS
PROFESSIONAL STATISTICIAN IDENTITY CARD
REGIONAL COUNCIL OF STATISTICS – CONRE 4th REGION
NAME: José Evandeilton Lopes
NATIONALITY: Brazilian
PLACE OF BIRTH: Buique
DATE OF BIRTH: 03/22/1983
FILIATION
FATHER Luiz Lopes da Silva
MOTHER Maria das Dores da Conceição
CPF: 045.131.684-39
IDENTITY No.: 11,452
PLACE AND DATE: Porto Alegre, July 4, 2025
SIGNATURE OF THE PRESIDENT OF CONRE


HOLDER: A F P R
DATE: 03/17/2014
ISSUING DATE: 07/04/2025
first COPY
INDEX FINGER
SIGNATURE OF THE HOLDER

Mr. Lopes's professional standing is further evidenced by his long list of internationally recognized certifications, his advanced degree equivalency, and more than a decade of documented contributions to some of Brazil's largest and most sophisticated data-driven companies. His academic and professional accomplishments demonstrate not only deep technical ability but also the capacity to lead multidisciplinary analytical teams, implement advanced statistical workflows, and translate complex data structures into strategic economic value—skills that are directly aligned with JL Data Dynamics' core services.

It is clear that Mr. Lopes has been involved, academically and professionally, with the fields of statistics, data science, predictive modeling, financial risk mitigation, and fraud analytics for more than twelve years. The progressiveness of his professional experience is evident through his continuous assumption of greater analytical responsibility and leadership in mission-critical environments supporting national banking, retail, telecommunications, and e-commerce operations. His sustained trajectory shows that he is well positioned to advance his proposed endeavor in the United States.

Collectively, his academic credentials, advanced training, national-scale analytical leadership, entrepreneurial initiative, and documented technical expertise form a strong and consistent record of success that directly mirrors the core services of JL Data Dynamics. Unlike a speculative or early-stage professional, Mr. Lopes presents a full decade of proven, measurable, and documented results in data science, statistical modeling, and financial risk mitigation. Accordingly, the evidence clearly establishes that Mr. Lopes is exceptionally well positioned to advance his proposed endeavor in the United States under the second prong of *Matter of Dhanasar.*

[20] https://www.confe.org.br/apresentacao.htm

3.2.2 INDEPENDENT EXPERT TESTIMONIALS SUPPORTING THE PETITIONER'S QUALIFICATIONS AND IMPACT:

In addition to his academic credentials and professional record, Mr. Lopes's qualifications and readiness to advance JL Data Dynamics are strongly supported by detailed letters from experts in Statistics and Data Science. These experts have directly supervised, evaluated, and collaborated with Mr. Lopes in advanced research and applied modeling contexts, providing objective, experience-based confirmation of his methodological rigor, scalability capacity, and institutional impact.

A first letter is provided by **PhD Professor Walmes Marques Zeviani, in the Department of Statistics at the Federal University of Paraná (UFPR)**, who has followed Mr. Lopes's trajectory since his undergraduate studies. Professor Zeviani emphasizes Mr. Lopes's ability to convert theoretical modeling into scalable operational systems, stating:

> *"What stands out most in his professional trajectory is the large-scale application of statistical models and fraud detection algorithms in the private sector, where he has demonstrated a unique ability to translate theoretical principles of programming and modeling into high-impact practical solutions."*

This statement directly supports the feasibility of JL Data Dynamics, whose core mission is precisely the deployment of advanced statistical and fraud risk models in institutional environments requiring scale, auditability, and technical robustness.

A second letter is provided by **PhD Professor Silvia Emiko Shimakura,** a Statistics and faculty member of the Graduate Program in Public Health at UFPR. Professor Shimakura highlights Mr. Lopes's ability to deliver institutional-level impact and measurable results in regulated environments:

> *"In his professional career, he has applied statistical modeling and machine learning techniques to areas such as solvency assessment and atypical transaction screening in the financial sector, producing measurable impacts on loss reduction and decision quality in large-scale operations."*

This assessment is particularly relevant to the proposed endeavor's fraud risk analytics and financial modeling services, which are designed to support U.S. institutions operating in highly regulated sectors.

A third expert letter is provided by **PhD Professor Paulo Justiniano Ribeiro Junior,** Associate Professor of Statistics at UFPR and coordinator of the Laboratory of Statistics and Geoinformation (LEG). Professor Ribeiro emphasizes Mr. Lopes's full-cycle modeling expertise and measurable financial impact and the tangible economic significance of Mr. Lopes's work:

> *"Rather than limiting himself to academic demonstrations, he conducts the full solution cycle: problem definition, study design, modeling, deployment, and ongoing performance monitoring. [...] At major banking institutions such as HSBC and Bradesco, he successfully applied statistical modeling to credit portfolio risk management and anomaly detection in transactional flows, generating financial impact in the billions of reais for large corporations."*

These observations directly align with JL Data Dynamics' structured modeling workflows, ongoing performance monitoring, and governance-oriented analytical framework.

A fourth expert letter is provided by **PhD Professor Wagner Hugo Bonat,** from the Statistics department at UFPR and doctoral advisor to Mr. Lopes. Professor Bonat underscores the rare combination of theoretical depth and industrial scalability and further affirms the relevance of this skill set in regulated and data-intensive environments:

> *"This versatility bridging theory and practice demonstrates not only his technical competence, but also his rare ability to generate value in different contexts. [...] In regulated environments, his attention to documentation and performance monitoring makes analytical decisions more trustworthy"*

This observation is particularly significant in the U.S. context, where model governance, auditability, and explainability are central policy concerns under federal AI and cybersecurity initiatives.

Together, these letters from senior professors and researchers in Statistics provide consistent and technically grounded validation of Mr. Lopes's expertise. The recommenders, who supervised his academic research and observed his applied modeling work, confirm that he has designed and implemented complex statistical systems in high-demand financial environments, translating rigorous theoretical methodologies into scalable industrial applications.

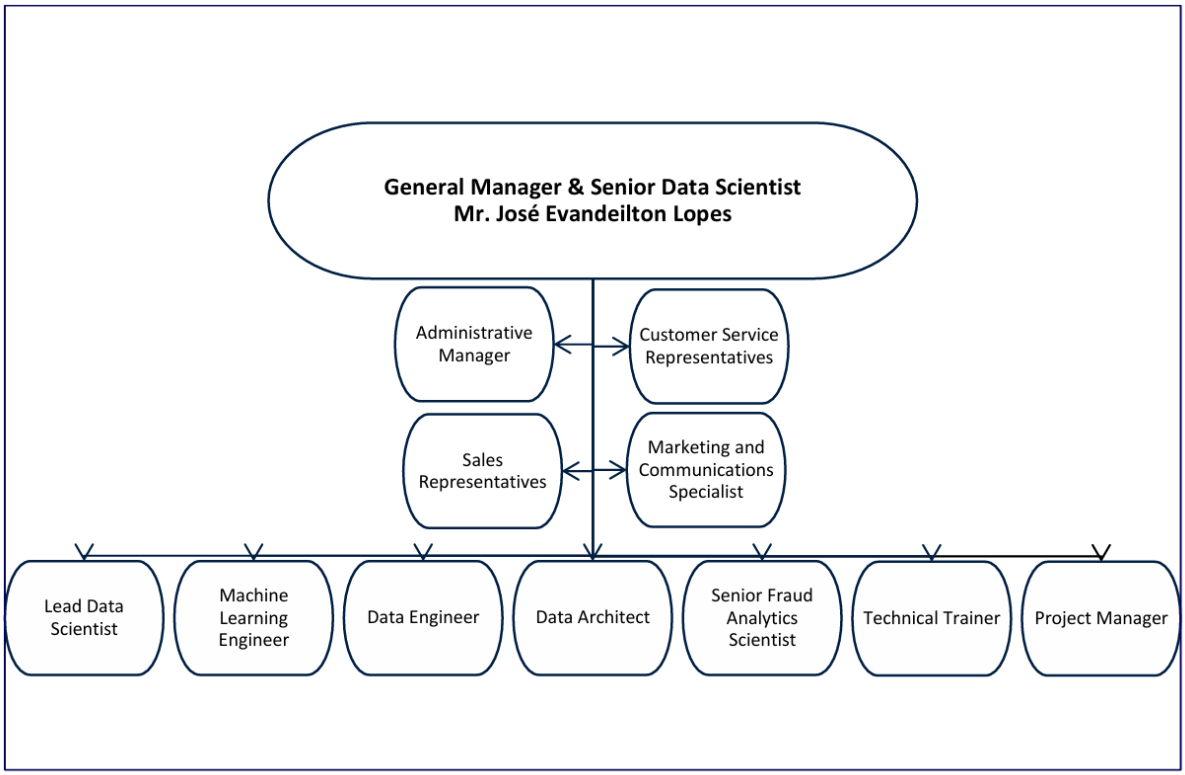
The experts emphasize his capacity to conduct the full analytical lifecycle—from model formulation and validation to operational deployment and performance monitoring—demonstrating both methodological depth and implementation discipline. Their evaluations are not general character references, but independent technical assessments grounded in direct academic and professional observation.

Importantly, the letters confirm that Mr. Lopes's expertise in fraud detection, credit risk modeling, anomaly detection, and model governance aligns with pressing U.S. priorities related to financial system integrity, AI accountability, and secure data infrastructure. In light of documented national fraud losses and increasing algorithmic complexity in digital finance, his ability to structure auditable and scalable statistical systems carries clear national relevance.

Accordingly, these expert testimonials provide credible third-party validation that Mr. Lopes is exceptionally well positioned to advance his proposed endeavor in the United States.

3.2.3 PLAN FOR FUTURE ACTIVITIES:

As Founder and General Manager & Senior Data Scientist, Mr. Lopes will personally lead the most strategically complex components of JL Data Dynamics' operations, integrating executive management with high-level statistical and machine learning oversight. His role encompasses the full lifecycle of the endeavor, including business development, strategic partnerships, operational supervision, and final validation of all analytical deliverables in fraud detection, credit risk modeling, and data infrastructure projects.



Mr. Lopes will be responsible for overseeing the company's financial health and operational efficiency while supervising a multidisciplinary team of professionals, including Lead Data Scientists, Machine Learning Engineers, Data Engineers, Data Architects, Technical Trainers, Project Managers, and business development staff, as outlined in the Business Plan (Exhibit C). By directing the company's technical and strategic roadmap, he will ensure that all solutions meet rigorous U.S. standards for model governance, data security, and regulatory alignment, particularly for clients operating in financial services, fintech, e-commerce, and other data-intensive sectors.

Under Mr. Lopes's leadership, JL Data Dynamics will cultivate a collaborative, high-performance analytical environment focused on efficiency, innovation, and measurable risk-reduction outcomes. He will also maintain direct involvement in client relations, ensuring strong partnerships, high levels of satisfaction, and sustainable business growth. His executive oversight will include the integration of Bayesian Networks and other advanced statistical models, scalable cloud-based infrastructure, and real-time fraud and risk monitoring frameworks to maintain the company's competitive positioning in the U.S. data science and analytics market.

Mr. Lopes will continuously monitor industry trends, emerging AI and machine learning technologies, regulatory developments related to financial crimes and data protection, and evolving best practices in data governance to ensure that JL Data Dynamics remains aligned with federal priorities and leading standards in applied data science.

In addition to his technical and managerial qualifications, Mr. Lopes has secured the financial resources necessary to launch and sustain the proposed enterprise. As outlined in the Business Plan (Exhibit C), JL Data Dynamics is projected to require an initial startup investment of $38,500.00 USD to cover essential startup expenses and core assets. Mr. Lopes has personally committed this capital from his own savings and accumulated earnings, demonstrating his ability to independently fund the launch of the company without reliance on external financing.

Startup	
Requirements	
Startup Expenses	
Legal	$1,000
Insurance	$500
Marketing	$5,000
Rent/Deposit	$7,000
Computers/Phones/Tablets	$5,000
Office furniture	$3,500
Total Startup Expenses	$22,000
Startup Assets	
Cash Required	$16,500
Startup Inventory	$0
Other Current Assets	$0
Long-term Assets	$0
Total Assets	$16,500
Total Requirements	**$38,500**

This investment plan reflects a conservative and well-structured allocation of resources consistent with the requirements of the data science and analytics sector. As detailed in the Business Plan's startup requirements table (Section 2.5.1) (Exhibit C.I), the budget includes $7,000.00 for high-performance computing infrastructure (Computers, Phones, and Tablets) essential for complex statistical modeling, $5,000.00 for Rent and Security Deposits to establish the company's headquarters in Raleigh, NC, $5,000.00 for Office Furniture and professional workspace setup, $3,500.00 for Marketing and business development initiatives, $1,000.00 for Legal and professional services to ensure regulatory compliance, and $500.00 for Insurance coverage, totaling $22,000.00 in Total Startup Expenses. Furthermore, the financial strategy accounts for $16,500.00 in Startup Assets, specifically as Cash Required to maintain operational liquidity and agility, bringing the Total Requirements to $38,500.00, a capital commitment that Mr. Lopes has personally secured to ensure the independent launch and sustainability of JL Data Dynamics without reliance on external or speculative financing.

This well-structured financial strategy is further supported by Mr. Lopes's documented personal assets and liquidity. As evidenced by the Property Appraisal Statement and Deed (Exhibits C.I and C.II), Mr. Lopes is the sole owner of a residential property in Piraquara, Paraná, with an appraised market value of **BRL 220,000.00** as of August 1, 2025. In addition, his 2025 Individual Income Tax Return confirms a liquid investment balance of **BRL 43,501.26** held in a Nubank RDB as of December 31, 2024 (Exhibit C). Collectively, these documented assets total BRL 263,501.26. According to the Central Bank of Brazil Currency Converter[21], using the quotation date February 23, 2026, this amount corresponds to approximately **$51,040.19 USD** based on the exchange rate 1 Real/BRL = 0.1937 US Dollar/USD (Exhibit C). This evidence demonstrates Mr. Lopes's preparedness and capacity to execute the proposed endeavor without dependence on speculative funding sources.

Mr. Lopes's professional standing is further evidenced by his record of high remuneration**.** According to his 2025 Individual Income Tax Return (Tax Year 2024) (Exhibit C), while serving as a **Data Science Consultant at STIX Fidelidade e Inteligência S.A**., he earned a total taxable income of **BRL 141,810.18**. By comparison, the average annual income in Brazil accorgind to

[21] https://www.bcb.gov.br/conversao

Indeed[22] during the same period was **BRL 89,931.00** (Exhibit C). According to the Central Bank of Brazil Currency Converter[23], using the quotation date February 23, 2026, Mr. Lopes's 2024 earnings correspond to approximately **$27,468.63 USD**, while the national average corresponds to approximately **$17,419.63 USD** (Exhibit C). This substantial **salary differential** serves as objective evidence of his advanced expertise and the high value placed on his analytical contributions by **major national-scale enterprises,** further supporting that he is well positioned to advance the proposed endeavor under the second prong of *Matter of Dhanasar*.

Taken together, the evidence overwhelmingly demonstrates that Mr. Lopes is exceptionally well positioned to advance the proposed endeavor in the United States. His academic training, including a bachelor's degree in Statistics, a Master's degree in Numerical Methods in Engineering with a focus on Statistical Methods, and ongoing doctoral research in Bayesian Networks, combined with more than twelve years of progressively responsible experience in credit risk modeling, fraud prevention, and applied data science, establishes a clear foundation for success. His ability to lead complex initiatives has been validated by large-scale projects for major financial institutions and analytics companies, including Bradesco, ClearSale, and Boa Vista SCPC (later acquired by Equifax), where his work contributed to the protection of high-value credit portfolios and the prevention of fraud in hundreds of millions of transactions.

These achievements have been further corroborated by detailed testimonial and employment letters from distinguished professionals and institutions, all of whom affirm both his outstanding qualifications and the strategic importance of his continued work through JL Data Dynamics. Moreover, Mr. Lopes has developed a robust and realistic implementation plan for the company, supported by a clearly defined leadership role and a thorough financial strategy backed by his own capital, as detailed in the Business Plan (Exhibit C.I).

The totality of these factors, including his combination of advanced statistical expertise, entrepreneurial initiative, professional recognition, documented financial capacity, and thoughtful operational planning, firmly supports the conclusion that Mr. Lopes is well positioned to make a significant and sustained contribution to U.S. economic innovation, financial security, and data infrastructure resilience through the proposed endeavor.

Accordingly, the record establishes not only that Mr. Lopes possesses the qualifications and experience necessary to successfully execute the proposed endeavor, but also that he has already demonstrated the leadership, strategic vision, and financial readiness required to immediately implement and scale JL Data Dynamics in the United States. His continued work in this capacity will directly strengthen the U.S. data and analytics economy, enhance fraud prevention and risk management infrastructures for organizations nationwide, and contribute to workforce development within the fields of data science, statistics, and applied machine learning.

3.3 <u>Third PRONG:</u>
On Balance, It Would be Beneficial to the United States to Waive the Requirement of a Job Offer and Labor Certification

Congress established the National Interest Waiver to address the limitations of the labor certification process. When a foreign national brings significant and unique benefits to a particular

[22] https://br.indeed.com/career/cientista-de-dados/salaries?from=top_sb
[23] https://www.bcb.gov.br/conversao

field beyond what is expected from a typical job, they should not be denied permanent residence solely because another individual could perform the job adequately.

Mr. Lopes exemplifies this intent. As a seasoned Statistician and Data Scientist with more than twelve years of experience leading high-impact analytical initiatives in fraud detection, credit risk modeling, and large-scale predictive analytics, his proposed endeavor transcends the scope of a conventional job placement. His work delivers strategic benefits to sectors vital to the United States, including financial system security, data infrastructure modernization, and workforce development in advanced analytics. The labor certification framework does not adequately account for entrepreneurial initiatives structured to create employment rather than fill a preexisting position.

Given the critical analytical, financial, and cybersecurity challenges identified in the modern U.S. economy, it would be impractical and contrary to the national interest to require a specific job offer for Mr. Lopes. His ability to serve multiple stakeholders, including financial institutions, fintechs, e-commerce platforms, research organizations, and small and medium-sized enterprises, provides a benefit to the United States that far outweighs the protections afforded by the labor certification process.

According to the third prong in the *Dhanasar* framework, adjudicators must conduct a balancing test by considering the national interest of requiring job offers and labor certifications against other factors that the foreign national brings to the table. This balancing act involves analyzing various factors, including:

- Whether it would be impractical for the foreign national to secure a job offer or for the petitioner to obtain a labor certification, given the nature of the foreign national's qualifications or proposed endeavor.

- Whether the United States would still benefit from the foreign national's contributions even if qualified U.S. workers are available.

- Whether the national interest in the foreign national's contributions is significant national relevance bypassing the labor certification process.

The *Dhanasar* decision elucidates that while these factors are not stringent prerequisites, they serve as valuable considerations. When collectively assessed, they offer insight into the potential benefits of waiving the job offer and labor certification requirements for the United States.

The evidence furnished within this petition compellingly illustrates the imperative national interest in bypassing the arduous procedures associated with the job offer and labor certification process. Mr. Lopes's endeavor is not about filling a vacancy; it is about providing a high-level analytical service that strengthens U.S. financial resilience, fraud prevention capabilities, and data-driven decision-making infrastructure on a nationwide scale. Hence, a favorable decision is merited.

3.3.1 IMPRACTICABILITY OF A LABOR CERTIFICATION:

Given the Petitioner's intended role as the Founder and General Manager & Senior Data Scientist of JL Data Dynamics, engaging in the labor certification process proves impractical. The labor certification process is designed primarily to protect U.S. workers from displacement by foreign nationals filling existing job openings. However, Mr. Lopes's entrepreneurial initiative does not displace any U.S. worker; rather, it directly creates new employment opportunities and contributes

to the U.S. economy through job creation, tax revenue, and the delivery of advanced statistical modeling, fraud analytics, and data governance services to financial institutions, fintechs, and other data-dependent sectors.

The traditional labor certification framework fails to accommodate the unique structure and objectives of Mr. Lopes's proposed endeavor. The following factors support this conclusion:

- **Nature of Entrepreneurial Endeavor:** As a self-employed entrepreneur, Mr. Lopes's role is inherently distinct from traditional employment scenarios. He is not seeking to fill an existing position that could be occupied by a U.S. worker; instead, he is establishing a new enterprise that will generate positions for U.S. workers across multiple technical roles, including Lead Data Scientists, Machine Learning Engineers, Data Engineers, Data Architects, Technical Trainers, Project Managers, Marketing specialists, and Customer Service professionals, as detailed in the organizational structure of his Business Plan.

- **Job Creation and Economic Impact:** As detailed in the five-year hiring plan (Business Plan, Section 2.0 and Section 9), JL Data Dynamics' growth is directly tied to client demand and project volume. Initial hires focus on core analytical, engineering, and governance capabilities, followed by training, operations, marketing, and customer support functions as demand grows. By Year 5, the company is projected to employ twenty-one (21) skilled professionals, generating approximately fifty-nine (59) additional indirect jobs according to the Economic Policy Institute multipliers (Business Plan, Section 9). This structure strengthens local capacity in advanced analytics, risk modeling, machine learning, and data governance within the Raleigh, North Carolina region

- **Self-Sustenance and Broader Contributions:** Through his entrepreneurial endeavor, Mr. Lopes not only secures his own economic sustenance but also plays a crucial role in fostering employment opportunities, generating tax revenue, and expanding the national analytical workforce. His services are aligned with federal priorities, including the National AI Initiative Act, the National Cybersecurity Strategy[24], and the Federal Data Strategy[25], making the labor certification process impractical and unnecessary for his case.

The Petitioner has provided compelling evidence demonstrating his intention to operate as a self-employed entrepreneur and has outlined, in detail, how JL Data Dynamics will contribute to job creation, generate tax revenue, and deliver advanced analytical and fraud-prevention services that serve the national interest. By pursuing this entrepreneurial endeavor, Mr. Lopes ensures his own economic sustainability and makes a significant contribution to U.S. economic competitiveness, financial security, and the modernization of national data infrastructure. .

3.3.2 THE U.S. WOULD STILL BENEFIT FROM THE FOREIGN NATIONAL'S CONTRIBUTION EVEN IF QUALIFIED U.S. WORKERS ARE AVAILABLE:

Given Mr. Lopes's extensive experience and track record as a senior data scientist, statistician, and analytics strategist, he is positioned to make significant strides in his proposed endeavor in the United States. Even in scenarios where other skilled U.S. workers are available, the nation has much to gain from Mr. Lopes's contributions:

[24] https://bidenwhitehouse.archives.gov/wp-content/uploads/2023/03/National-Cybersecurity-Strategy-2023.pdf
[25] https://strategy.data.gov/

- **Unique Qualifications and Expertise:** Mr. Lopes brings a rare combination of advanced statistical expertise, machine learning proficiency, and large-scale financial risk experience that is difficult to replicate. His more than 12 years of progressively responsible work in fraud prevention, credit risk modeling, and high-volume predictive analytics, supporting institutions such as Bradesco, ClearSale, and Boa Vista SCPC (Equifax), position him to deliver specialized knowledge and executive direction of substantial value to the United States. His expertise spans Bayesian Networks, credit scoring systems, real-time anomaly detection, data governance, statistical modeling for regulated sectors, and scalable cloud-based analytical workflows. These competencies are directly linked to national priorities such as fraud prevention, financial system stability, and data infrastructure modernization.

- **Letters of Support and Testimonials:** The attached letters of support and employment attestations serve as a testament to Mr. Lopes's impact in his field. These letters from distinguished professionals highlight his leadership, technical proficiency, and reliability in analytically complex and high stakes environments. They further corroborate that his work has produced tangible and lasting benefits for organizations, and that his continued contribution through JL Data Dynamics will bring distinct value that extends beyond routine data science services, strengthening organizational decision making capacity and enhancing fraud and financial risk mitigation across sectors.

Taking everything into consideration, while there may be qualified U.S. workers available, the exceptional expertise, unique perspective, and proven track record that Mr. Lopes brings to the fields of statistical modeling, fraud analytics, and financial risk intelligence offer substantial and distinct benefits. His contributions, backed by strong endorsements from industry professionals and validated through implementation in major financial institutions, demonstrate that his presence in the United States will meaningfully expand analytical capacity, enhance national financial security, and help generate economic value through scalable, high impact data science services and job creation. Therefore, it is in the national interest to prioritize his contributions by waiving the labor certification process.

3.3.3 WHETHER THE NATIONAL INTEREST IN THE FOREIGN NATIONAL'S CONTRIBUTIONS IS URGENT ENOUGH TO JUSTIFY BYPASSING THE LABOR CERTIFICATION PROCESS:

The national interest in Mr. Lopes's contributions is urgent enough to justify bypassing the labor certification process. His extensive analytical experience and specialized expertise underscore the immediate benefits that his endeavor will bring to the United States.

- **Timeliness of Expertise:** The U.S. economy faces escalating challenges related to fraud, financial crime, data infrastructure fragmentation, and emerging AI driven risks. Federal agencies including the FTC, Department of the Treasury, and CISA[26] have emphasized the need for advanced fraud detection, improved data governance, and more secure analytical systems. These time sensitive demands require experienced leaders capable of implementing robust predictive models, anomaly detection systems, and secure data architectures. Mr. Lopes's expertise in Bayesian Networks, credit risk modeling, cloud based analytical workflows, and enterprise level fraud systems is uniquely suited to address these urgent national needs.

[26] https://www.cisa.gov/cybersecurity-strategic-plan

- **Immediate Economic Impact:** Mr. Lopes's proposed endeavor, JL Data Dynamics, promises immediate economic benefits, including job creation, expanded analytical capacity, and increased tax revenue. Rapid implementation of his business plan will stimulate economic activity in the Raleigh, North Carolina region one of the nation's leading data and technology hubs. As outlined in the Business Plan, the company is expected to generate 21 direct jobs and approximately 59 indirect jobs by Year 5, based on Economic Policy Institute multipliers. Delaying his contributions by subjecting him to the labor certification process could result in missed opportunities for fraud reduction, financial risk mitigation, and the timely delivery of advanced analytical services to organizations that depend on secure and reliable data infrastructures.

- **Strategic Advantage:** Enabling Mr. Lopes to launch his endeavor without delay provides a strategic advantage to U.S. organizations that rely on accurate, secure, and predictive data analysis to operate competitively. His proven ability to lead complex analytical initiatives, design scalable modeling frameworks, and deliver consistent risk reduction outcomes will strengthen institutional decision making and enhance resilience across sectors. In an environment where financial systems face rapid threats from cyber enabled fraud and AI driven manipulation, his presence is a significant asset.

In short, the national interest in Mr. Lopes's contributions is urgent and compelling. His unique expertise, immediate impact on fraud prevention and financial risk modeling, and the substantial economic and strategic benefits his venture promises justify bypassing the labor certification process. The rapid integration of his specialized statistical and data science capabilities will support time sensitive national priorities, protect U.S. financial infrastructure, and generate meaningful economic and workforce benefits, constituting a strong case for the National Interest Waiver.

4. FINAL CONSIDERATIONS

From all topics discussed above and the attached evidence, it is "more likely than not" that:

1. The self-petitioner, Mr. José Evandeilton Lopes, satisfies the Advanced Degree requirement under INA 203(b)(2). He holds a bachelor's degree in Statistics and a Master's Degree in Numerical Methods in Engineering with advanced statistical training, and he is currently a Ph.D. candidate in Statistics. His more than twelve years of progressive post-degree experience in fraud prevention, credit risk modeling, data governance, and large-scale predictive analytics demonstrate a degree of expertise significantly above that ordinarily encountered in the field. Together, his academic credentials and professional accomplishments firmly establish his eligibility under the statutory classification.

2. The proposed endeavor has substantial merit and national importance. JL Data Dynamics is aligned with vital U.S. national interests, **including the strengthening of financial system integrity, the modernization of data infrastructure, and the national need for advanced fraud detection, statistical modeling, and secure analytical workflows. The endeavor directly addresses the increasing demand for robust, data-driven risk-management frameworks and contributes to workforce development in data science and machine learning. Accordingly, it satisfies the first prong under the *Matter of Dhanasar* precedent**.

3. The self-petitioner is well-positioned to advance the endeavor. Mr. Lopes has extensive experience in high-stakes analytical environments, a comprehensive and realistic Business Plan, and letters of support from distinguished professionals confirming his impact in the

field. He has also committed substantial personal financial resources to the venture, as evidenced by his documented liquidity and the detailed startup investment plan totaling $38,500.00 outlined in the Business Plan. His proven expertise in Bayesian Networks, credit risk modeling, fraud analytics, and scalable data-infrastructure workflows, validated by his record of performance in major financial institutions, firmly establishes his ability to successfully conduct and scale the proposed endeavor in the United States.

4. On balance, it would be beneficial to the United States to waive the requirement of a job offer and labor certification. The labor certification process is impracticable for an entrepreneur like Mr. Lopes, whose role is to create, rather than fill, jobs. His endeavor has the potential to create twenty-one (21) specialized positions for U.S. workers in data science, machine learning engineering, data architecture, training, marketing, customer service, and operations, contributing significantly to the national economy and to the expansion of analytical capacity in the Raleigh, North Carolina region. The strategic importance of enhancing U.S. financial security, fraud prevention capability, and data-infrastructure resilience further justifies bypassing the lengthy labor certification process.

Accordingly, Mr. José Evandeilton Lopes merits a favorable adjudication of this I-140 petition under the Employment-Based Second Preference category with a request for a waiver of the job offer and labor certification requirements, pursuant to INA §203(b)(2)(B). His qualifications, leadership, and proven impact in the fields of Statistical Modeling, Data Science, and Financial Risk Analysis distinctly align with the legislative intent of the National Interest Waiver provision.

We respectfully request USCIS to approve this petition in light of the overwhelming evidence of national benefit and professional excellence.

Should you require any further information or documentation, please do not hesitate to contact my office. Thank you in advance for your kind assistance with this matter.

Sincerely,



Otavio Haverroth Silva
California Bar # 343486

Exhibit list

Exhibits:	Pages:
Exhibit A	
Resume	1-28
Exhibit B - Eligibility Criteria: Advanced Degree	
Ongoing Ph.D. in Numerical Methods in Engineering - UFPR	29-34
Master of Science (M.Sc.) in Numerical Methods in Engineering – UFPR (Diploma & Transcript)	35-55
MBA in Business Intelligence (Diploma & Transcript)	56-63
Bachelor's Degree in Statistics (Diploma & Transcript)	64-75
Academic Credential Evaluation (U.S. Master’s in Statistics Equivalency)	76-83
Exhibit B - Eligibility Criteria: Professional Evidence	
STIX – Advanced Modeling for Loyalty Data (13M+ users)	84-96
Bradesco – Credit Risk & Fraud Modeling	97-101
ClearSale – Real-Time Fraud Detection Models	102-106
Boa Vista/Equifax – National Credit Bureau Risk Architecture	107-113
Exhibit C.I – First Prong – Substantial Merit and National Importance	
Business Plan for JL Data Dynamics	114-184
Federal-Level Legal Research Supporting National Importance	185-258
Exhibit C.II - Second Prong: Specialized courses	

Specialization courses	259-276
Other relevant technical certifications	277-302

Exhibit C.II - Second Prong: Lincesure and Professional Credentials

CONFE – Federal Council of Statistics – Professional Registration	303-307
ABE – Brazilian Statistical Association – Active Membership	308-330

Exhibit C.II - Second Prong: Letters of Support

Dr. Walmes Marques Zeviani	331-356
Dr. Silvia Emiko Shimakura	357-390
Dr. Paulo Justiniano Ribeiro Junior	391-428
Dr. Wagner Hugo Bona	429-454

Exhibit C.II - Second Prong: Proof of Financial Feasibility

Property Appraisal & Deed	455-466
Central Bank of Brazil (BCB) – Currency Conversion	467-468

Exhibit C.II - Second Prong: Proof of High Salary

High Salary Evidence (Tax Returns)	469-492
Salary Comparison (Indeed / Salary.com)	493-494
Central Bank of Brazil (BCB) – Currency Conversion	495-498

Exhibit C.II - Second Prong: Other Eligible Evidences

Other Eligible Evidences	499-602

Exhibit D - Personal Documents

Passport’s Biometrics Page	603-604
Birth Certificate and Corresponding Translation	605-607
Marriage Certificate and Corresponding Translation	608-610

Derivatives’ Passport Biometrics Page	611-613
Derivatives’ Birth Certificate and corresponding translation	614-620

Exhibit A

JOSÉ EVANDEILTON LOPES

Email | evandeilton@gmail.com

Phone | *+55 41 98840-8938*

I am a results-driven Statistician and Data Scientist, currently pursuing a Ph.D. in Statistics at UFPR(Federal University of Paraná), with extensive experience in developing high-impact statistical and machine learning models for credit risk and origination, fraud detection, and customer segmentation in corporate environments. I have proven expertise across the entire pipeline of planning, developing, and deploying solutions based on statistical and machine learning models using R, SQL, and Python in cloud environments to mitigate financial risks, combat fraud, and drive strategic business decisions in the financial, fintech, loyalty, and e-commerce fraud prevention sectors. I have mentored over 850 professionals in data science and analytics through Udemy.

WORK EXPERIENCE

DATA SCIENCE CONSULTANT

STIX | BARUERI, SÃO PAULO, BRAZIL

02/2024 – PRESENT

As the person responsible for applying analytical intelligence within the Stix points ecosystem, I lead the analysis and segmentation of a customer base comprising 13 million loyalty program members. This work, carried out across a coalition of partners in the food, pharmacy, fuel, apparel, home improvement, and pet sector, generates analytical and strategic insights for the senior Marketing and CRM teams. The goal is to capitalize on value opportunities, enhance marketing strategies, and strengthen fraud prevention through the development and monitoring of statistical and machine learning models. Under my direct leadership, I have trained and deployed around 10 machine learning models, including clustering, random forest, classification, and regression models, to score and segment customers into groups with the highest likelihood of financial return. Additionally, I work on the architecture of databases for statistical study and modeling, process automation, and the creation of reports with actionable insights for executive decision-making.

DATA SCIENCE III

BRADESCO | CURITIBA, PARANÁ, BRAZIL

01/2023 – 01/2024

As a member of the data science team within the Corporate Working Capital division, I was one of the professionals responsible for the research, creation, and implementation of over 50 new credit policies for Corporate Working Capital in 2023, with a direct impact on the segment's 2024 results at the bank. My work directly influenced a strategic Bradesco portfolio that reached R$100 billion and a base of 1.8 million corporate clients, focusing on Micro, Small, and Medium Enterprises (MSMEs). Using SAS and DataBricks tools, I conducted studies based on credit scores and decision matrices to mitigate risks, which was essential in supporting the secure expansion of the portfolio, which grew by 20.7% during the period. Additionally, I developed data visualizations and reports that directly supported executive decision-making at the bank.

MODELING ANALYST

CLEARSALE | SÃO PAULO, SÃO PAULO, BRAZIL

10/2018 – 09/2021

As part of ClearSale's central Modeling and Monitoring team, I worked at the core of Brazil's fraud prevention efforts, handling a proprietary data lake that processed over 375 million annual transactions for 9 of the 10 largest retailers in the country. My responsibility was to ensure the integrity of the company's core technology—the models implemented in the Lake. I developed an anomaly detection system for the robust monitoring of over 10 machine learning models and created a reporting tool in R Shiny to streamline management decision-making regarding the health of these models. This technological capability, in which my work played a key role, was part of the engine that drove the company's revenue from R$208.5 million in 2019 to R$575.6 million in 2022. This technological performance, which prevented billions in fraud and safeguarded the health of Brazilian e-commerce, contributed to the company reaching a valuation of R$4.7 billion during its successful IPO in 2021.

SENIOR MODELING ANALYST

BOA VISTA SCPC | BARUERI, SÃO PAULO, BRAZIL

07/2017 - 10/2018

As a Senior Modeling Analyst on the Analytics team at the second-largest credit bureau in Brazil, I was responsible for monitoring a robust portfolio of over 80 credit risk, presumed income, origination, and behavioral models. I managed the lifecycle of both custom and off-the-shelf models, producing more than 100 performance, stability, and accuracy reports for internal and external clients monthly with my team. Using SAS, SQL, and R, my meticulous analyses ensured the quality of products that impacted a database with over 2 billion commercial records of individuals and companies in a secure environment with proprietary technology. This work was key to the 13.8% revenue growth in score-based "Decision Services." Along with reductions in operational and tax expenses, my work in model monitoring directly contributed to the significant 203.2% increase in the company's adjusted net income between 2017 and 2018, solidifying its position as a key player in the Brazilian credit market.

CREDIT RISK ANALYST

HSBC | CURITIBA AND REGION, PARANÁ, BRAZIL

06/2013 – 07/2014

As a Credit Risk Analyst at one of the largest international banks operating in Brazil at the time, I went through the full cycle of development, implementation, and monitoring of credit score and behavioral scoring models. I conducted backtesting of models borrowed from Mexico and created Analytic Base Tables (ABT) for various studies. Using SAS and R, I applied statistical techniques such as Logistic Regression, Decision Trees, and segmentation analysis to build and validate models. My work also included conducting in-depth studies and preparing management reports to support the risk department's strategic decisions.

RISK MODELING INTERN II

HSBC | CURITIBA AND REGION, PARANÁ, BRAZIL

06/2011 – 05/2013

Starting my career in the field, I provided direct support to the senior team in the development, implementation, and monitoring of credit score and behavioral models in the corporate portfolio, aiming to comply with Basel II agreement policies related to risk capital. My tasks, performed using SAS, R, and Excel, included conducting statistical studies and preparing management reports that served as the basis for model analyses and optimizations carried out by the analyst team.

EDUCATION

PhD STUDENT IN PROBABILITY AND STATISTICS

FEDERAL UNIVERSITY OF PARANÁ (UFPR)

CURITIBA, PR, BRAZIL

EXPECTED COMPLETION: 2027

Research focused on Statistical Methods, with a central emphasis on Bayesian Network Theory. The study covers everything from theoretical foundations to computational applications.

MASTER'S DEGREE OF NUMERICAL METHODS IN ENGINEERING

FEDERAL UNIVERSITY OF PARANÁ (UFPR)

CURITIBA, PR, BRAZIL

JUNE 2023

Research conducted in the area of Statistical Methods, focusing on scientific programming, optimization, and statistics (R, Python, C++). For my master's thesis, I proposed and validated a new regression model for scaled data, with practical application in pain scale prediction.

MBA IN BUSINESS INTELLIGENCE

POSITIVO UNIVERSITY

CURITIBA, PR, BRAZIL

DECEMBER 2015

Focused on developing business skills and applying technologies for competitive intelligence. The final thesis explored the use of Time Series as a tool for decision-making in BI, with practical application in the analysis of IT metrics (hardware and software).

BACHELOR 'S DEGREE IN STATISTICS

FEDERAL UNIVERSITY OF PARANÁ (UFPR)

CURITIBA, PR, BRAZIL

DECEMBER 2013

The undergraduate thesis focused on the Simplex Regression model and its application to unit data. During my undergraduate studies, I actively participated in conferences and seminars and worked as a teaching assistant in statistics and probability programs.

KEY COURSES / SEMINARS

- **SYMPOSIUM ON NUMERICAL METHODS IN ENGINEERING 2024 (SMNE 2024) – 11/2024: "BETA REGRESSION MODELS FOR SCALE DATA" AUTHORED BY JOSÉ EVANDEILTON LOPES AND WAGNER HUGO BONAT, PRESENTED BY JOSÉ EVANDEILTON LOPES**
- **SYMPOSIUM ON NUMERICAL METHODS IN ENGINEERING 2023 (SMNE 2023) – 11/2023: "PREDICTION OF CARDIAC RISKS VIA BAYESIAN NETWORKS" AUTHORED BY JOSÉ EVANDEILTON LOPES AND WAGNER HUGO BONAT, PRESENTED BY JOSÉ EVANDEILTON LOPES.**

CERTIFICATIONS

- **APPLIED TEXT MINING IN PYTHON (HTTPS://COURSERA.ORG/SHARE/66EBF2424839F1AE2AB8979A980ECB66) - 01/2018**
- **CREATING DASHBOARDS AND STORYTELLING WITH TABLEAU (HTTPS://COURSERA.ORG/SHARE/DE5F3A2EDA789B3308EB06282A4E8A82) – 01/2018**
- **MASTERING SOFTWARE DEVELOPMENT IN R CAPSTONE (HTTPS://COURSERA.ORG/SHARE/3940EF0BDDB8B2C1F7487D318A5E5A0B) – 01/2018**
- **VISUAL ANALYTICS WITH TABLEAU (HTTPS://COURSERA.ORG/SHARE/57B53551344F04330A0DCBD79A938DB0) - 12/2017**
- **ESSENTIAL DESIGN PRINCIPLES FOR TABLEAU (HTTPS://COURSERA.ORG/SHARE/3E4E9CECBBA4071E35C2301EC6644338) – 10/2017**
- **FUNDAMENTALS OF VISUALIZATION WITH TABLEAU (HTTPS://COURSERA.ORG/SHARE/93B5669E693B7BD1DADA5D02218B25B8) - 10/2017**
- **APPLIED MACHINE LEARNING IN PYTHON (HTTPS://COURSERA.ORG/SHARE/10A7E2B407D7480F5193ED4BB200B8BF) - 07/2017**
- **BUILDING DATA VISUALIZATION TOOLS (HTTPS://COURSERA.ORG/SHARE/2D681E75D69F90CAF89A11876DAB7409) - 06/2017**
- **ADVANCED R PROGRAMMING (HTTPS://COURSERA.ORG/SHARE/2115C9BB29497CDB195C4749104B2883) - 05/2017**
- **BUILDING R PACKAGES (HTTPS://COURSERA.ORG/SHARE/7DA3B157049EF8682E7C220780BC976C) - 05/2017**
- **THE R PROGRAMMING ENVIRONMENT (HTTPS://COURSERA.ORG/SHARE/5D9B9CA0E7E25D6F61F78DB18C39B78A) – 04/2017**
- **MASTERING SOFTWARE DEVELOPMENT IN R (HTTPS://COURSERA.ORG/SHARE/3E609BFAD9F70F38D8AA1E2F2B57A7D9) – 04/2017**
- **APPLIED PLOTTING, CHARTING & DATA REPRESENTATION IN PYTHON (HTTPS://WWW.COURSERA.ORG/ACCOUNT/ACCOMPLISHMENTS/CERTIFICATE/NNZ4TF HSR736) – 04/2017**
- **INTRODUCTION TO DATA SCIENCE IN PYTHON (HTTPS://WWW.COURSERA.ORG/ACCOUNT/ACCOMPLISHMENTS/CERTIFICATE/RZTONS TQRSH9) – 12/2016**
- **APPLIED DATA SCIENCE WITH PYTHON (HTTPS://COURSERA.ORG/SHARE/1563D8B1A4EEDBACDEFA0B479468DB0F) - 09/016**

PROFESSIONAL LICENSE

CONFE – FEDERAL COUNCIL OF STATISTICS

LICENSE NUMBER: 11452

PUBLISHED ARTICLES

- **LIKELIHOOD ANALYSIS FOR A CLASS OF SIMPLEX MIXED MODELS**
  Chilean Journal of Statistics, Volume 9, No. 2, September 2018, pages 3-17
  09/2018 – CHILE

VOLUNTEER WORK

- **LOVE AND GRACE BAPTIST CHURCH (IBAG)**
  SOUND AND PROJECTION TECHNICIAN
  2022 to 2024 – PIRAQUARA, PARANÁ, BRAZIL

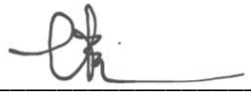
OTHER SKILLS

- **COMPUTER TECHNICIAN**
  ADVANCED MAINTENANCE TOOLS – ELABORATA – CURITIBA/PR – 09/2007 (15 CLASS HOURS)
  CERTIFICATION: ASSEMBLY AND MAINTENANCE OF MICROCOMPUTERS – CURITIBA/PR – 09/2007 (45 CLASS HOURS)
  CERTIFICATION: LOCAL NETWORKS – CURITIBA/PR – 04/2007 (24 CLASS HOURS)
  CERTIFICATION: MICROCOMPUTER MAINTENANCE – RECIFE/PE – 04/2002 (40 CLASS HOURS)
  CERTIFICATION: INTERNEY – RECIFE/PE – 04/2002 (40 CLASS HOURS)

- **REFRIGERATION MECHANIC**
  CERTIFICATION: REFRIGERATION / SALESIANOS – DOM BOSCO SCHOOL OF ARTS AND VOCATIONAL TRADES – RECIFE/PE
  – 12/2002 (320 CLASS HOURS)

JULY 2025

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 4, 2025.

JOSÉ EVANDEILTON LOPES

E-mail | evandeilton@gmail.com

Telefone | *+55 41 98840-8938*

Sou Estatístico e Cientista de Dados orientado a resultados, atualmente cursando doutorado em Estatística na UFPR, com vasta experiência no desenvolvimento de modelos estatísticos e de machine learning de alto impacto para risco e originação de crédito, detecção de fraudes e segmentação de clientes em ambiente corporativo. Possuo expertise comprovada em toda a esteira de planejamento, desenvolvimento e implantação de soluções baseadas em modelos estatísticos e de machine learning usando R, SQL, e Python em ambientes cloud para mitigar riscos financeiros, combater fraudes e impulsionar decisões de negócios estratégicas nos setores financeiro, fintech, loyalties e antifraude no e-commerce. Orientei mais de 850 profissionais em data science e analytics via Udemy.

EXPERIÊNCIA

CONSULTOR DE CIÊNCIA DE DADOS

STIX | BARUERI, SÃO PAULO, BRASIL

02/2024 – PRESENTE

Como responsável pela aplicação de inteligência analítica no ecossistema de pontos Stix, lidero a análise e segmentação de uma base com 13 milhões de clientes do programa de fidelidade. Este trabalho, realizado sobre uma coalizão de parceiros dos segmentos de alimentos, farmácia, combustíveis, vestuário, casa e construção e pet, gera inteligência analítica e estratégica para a equipe sênior de Marketing e CRM. O objetivo é capitalizar oportunidades de valor, aprimorar estratégias de marketing e fortalecer o combate a fraudes através do desenvolvimento e monitoramento de modelos estatísticos e de machine learning. Sob minha ação direta, treinei e implantei cerca de 10 modelos de machine learning, entre eles de clusters, floresta aleatória, classificação e regressão para escorar e segmentar os clientes de forma otimizada em grupos de maior probabilidade de retorno financeiro. Adicionalmente, atuo na arquitetura de bases de dados para estudo e modelagem estatística, na automatização de processos e na criação de relatórios com insights acionáveis para a tomada de decisão executiva.

CIENTISTA DE DADOS III

BRADESCO | CURITIBA, PARANÁ, BRASIL

01/2023 – 01/2024

Como membro da equipe de ciência de dados dentro do time de Capital de Giro PJ, fui um dos responsáveis pelo estudo, criação e implementação de mais de 50 novas políticas de crédito para o Capital de Giro PJ em 2023 com impacto direto nos resultados de 2024 do segmento no banco. Meu trabalho impactou diretamente um portfólio estratégico do Bradesco que atingiu R$ 100 bilhões e uma base de 1,8 milhão de clientes corporativos, com foco em Micro, Pequenas e Médias Empresas (MPME). Utilizando ferramentas do SAS e DataBricks, desenvolvi estudos baseados em scores de crédito e matrizes de decisão para mitigar riscos, o que foi fundamental para suportar a expansão segura da carteira, que cresceu 20,7% no período. Adicionalmente, criei visualizações de dados e relatórios que subsidiaram diretamente as decisões da alta gestão do banco.s

ANALISTA DE MODELAGEM

CLEARSALE | SÃO PAULO, SÃO PAULO, BRASIL

10/2018 – 09/2021

Integrando a equipe central de Modelagem e Monitoramento da ClearSale, atuei diretamente no núcleo da prevenção à fraude no Brasil, trabalhando sobre um data lake proprietário que processava mais de 375 milhões de transações anuais para 9 dos 10 maiores varejistas do país. Minha responsabilidade era garantir a integridade da principal tecnologia da empresa, os modelos implementados no Lake: desenvolvi um sistema de detecção de anomalias para o monitoramento robusto de mais de 10 modelos de machine learning e criei uma ferramenta de relatórios em R Shiny para agilizar a decisão gerencial sobre a saúde desses modelos. Essa capacidade tecnológica, da qual meu trabalho foi parte fundamental, fez parte do motor que impulsionou o faturamento da companhia de R$ 208,5 milhões em 2019 para R$ 575,6 milhões em 2022. Essa performance tecnológica, que evitou bilhões em fraudes e protegeu a saúde do e-commerce brasileiro, ajudou a empresa a atingir um valuation de R$ 4,7 bilhões alcançado no bem-sucedido IPO em 2021.

ANALISTA DE MODELAGEM SR

BOA VISTA SCPC | BARUERI, SÃO PAULO, BRASIL

07/2017 – 10/2018

Como Analista de Modelagem Sênior no time de Analytics do segundo maior birô de crédito do Brasil, fui responsável pelo monitoramento de um portfólio robusto com mais de 80 modelos de risco de crédito, renda presumida, originação e comportamentais. Gerenciei o ciclo de vida de modelos customizados e de prateleira, produzindo mais de 100 relatórios de performance, estabilidade e acurácia para clientes internos e externos mensalmente junto com minha equipe. Utilizando SAS, SQL e R, minhas análises cuidadosas garantiam a qualidade dos produtos que impactavam uma base com mais de 2 bilhões de informações comerciais de pessoas física e jurídicas num contexto seguro com tecnologia proprietária. Este trabalho foi fundamental para o crescimento de 13,8% na receita de "Serviços para Decisão" baseada em score. Juntamente com redução de despesas operacionais e fiscais, meu trabalho em monitoramento de modelos, contribuiu diretamente para o expressivo salto de 203,2% no lucro líquido ajustado da companhia entre 2017 e 2018, consolidando sua posição como um player essencial no mercado de crédito brasileiro.

ANALISTA DE RISCO DE CRÉDITO PL

HSBC | CURITIBA E REGIÃO, PARANÁ, BRASIL

06/2013 – 07/2014

Como Analista de Risco de Crédito em um dos maiores bancos internacionais com operação no Brasil na época, passei pelo ciclo completo de desenvolvimento, implementação e monitoramento de modelos de score de crédito e de comportamento (behavioral scoring). Realizei back testes de modelos emprestados do México e criação de Analytic Base Table (ABT) para estudos diversos. Utilizando SAS e R, apliquei técnicas estatísticas como Regressão Logística, Árvores de Decisão e análise de segmentação para construir e validar modelos. Meu trabalho também incluía a condução de estudos aprofundados e a preparação de relatórios gerenciais para suportar as decisões estratégicas da área de risco.

ESTAGIÁRIO EM MODELAGEM DE RISCO II

HSBC | CURITIBA E REGIÃO, PARANÁ, BRASIL

06/2011 – 05/2013

Iniciando minha carreira na área, prestei suporte direto à equipe sênior no desenvolvimento, implementação e monitoramento de modelos de score de crédito e de comportamento no portfólio de PJ, visando atender às políticas do acordo de Basileia II envolvendo capital de risco. Minhas tarefas, realizadas com SAS, R e Excel, incluíam a execução de estudos estatísticos e a preparação de relatórios gerenciais que serviam de base para as análises e otimizações de modelos realizadas pela equipe de analistas.

EDUCAÇÃO

DOUTORADO EM PROBABILIDADE E ESTATÍSTICA

UNIVERSIDADE FEDERAL DO PARANÁ (UFPR)

CURITIBA, PR, BRASIL

PREVISÃO DE CONCLUSÃO: 2027

Pesquisa na linha de Métodos Estatísticos, com foco central na Teoria das Redes Bayesianas. O estudo abrange desde os fundamentos teóricos até as aplicações computacionais.

MESTRADO EM MÉTODOS NUMÉRICOS EM ENGENHARIA

UNIVERSIDADE FEDERAL DO PARANÁ (UFPR)

CURITIBA, PR, BRASIL

JUNHO 2023

Pesquisa desenvolvida na linha de Métodos Estatísticos, com foco em programação científica, otimização e estatística (R, Python, C++). Como dissertação de mestrado propus e validei um novo modelo de regressão para dados em escala, com aplicação prática na predição de escalas de dor.

MBA EM BUSINESS INTELLIGENCE

UNIVERSIDADE POSITIVO

CURITIBA, PR, BRASIL

DEZEMBRO 2015

Foco no desenvolvimento de competências de negócio e na aplicação de tecnologias para inteligência competitiva. O Trabalho de Conclusão de Curso (TCC) explorou o uso de Séries Temporais como ferramenta para tomada de decisão em BI, com aplicação prática na análise de métricas de TI (hardware e software).

BACHARELADO EM ESTATÍSTICA

UNIVERSIDADE FEDERAL DO PARANÁ (UFPR)

CURITIBA, PR, BRASIL

DEZEMBRO 2013

Trabalho de Conclusão de Curso (TCC) focado no modelo de Regressão Simplex e sua aplicação a dados unitários. Durante a graduação, participei ativamente de congressos e seminários e atuei como monitor em disciplinas de estatística e probabilidade.

PRINCIPAIS CURSOS / SEMINÁRIOS

- **SIMPÓSIO DE MÉTODOS NUMÉRICOS EM ENGENHARIA 2024 (SMNE 2024) – 11/2024: "MODELOS DE REGRESSÃO BETA PARA DADOS DE ESCALA" DE AUTORIA DE JOSÉ EVANDEILTON LOPES E WAGNER HUGO BONAT FOI APRESENTADO POR JOSÉ EVANDEILTON LOPES**
- **SIMPÓSIO DE MÉTODOS NUMÉRICOS EM ENGENHARIA 2023 (SMNE 2024) – 11/2023: "PREDIÇÃO DE RISCOS CARDÍACOS VIA REDES BAYESIANAS " DE AUTORIA DE JOSÉ EVANDEILTON LOPES, WAGNER HUGO BONAT FOI APRESENTADO POR JOSÉ EVANDEILTON LOPES**

CERTIFICAÇÕES

- **APPLIED TEXT MINING IN PYTHON (HTTPS://COURSERA.ORG/SHARE/66EBF2424839F1AE2AB8979A980ECB66) - 01/2018**
- **CREATING DASHBOARDS AND STORYTELLING WITH TABLEAU (HTTPS://COURSERA.ORG/SHARE/DE5F3A2EDA789B3308EB06282A4E8A82) – 01/2018**
- **MASTERING SOFTWARE DEVELOPMENT IN R CAPSTONE (HTTPS://COURSERA.ORG/SHARE/3940EF0BDDB8B2C1F7487D318A5E5A0B) – 01/2018**
- **VISUAL ANALYTICS WITH TABLEAU (HTTPS://COURSERA.ORG/SHARE/57B53551344F04330A0DCBD79A938DB0) - 12/2017**
- **ESSENTIAL DESIGN PRINCIPLES FOR TABLEAU (HTTPS://COURSERA.ORG/SHARE/3E4E9CECBBA4071E35C2301EC6644338) – 10/2017**
- **FUNDAMENTALS OF VISUALIZATION WITH TABLEAU (HTTPS://COURSERA.ORG/SHARE/93B5669E693B7BD1DADA5D02218B25B8) - 10/2017**
- **APPLIED MACHINE LEARNING IN PYTHON (HTTPS://COURSERA.ORG/SHARE/10A7E2B407D7480F5193ED4BB200B8BF) - 07/2017**
- **BUILDING DATA VISUALIZATION TOOLS (HTTPS://COURSERA.ORG/SHARE/2D681E75D69F90CAF89A11876DAB7409) - 06/2017**
- **ADVANCED R PROGRAMMING (HTTPS://COURSERA.ORG/SHARE/2115C9BB29497CDB195C4749104B2883) - 05/2017**
- **BUILDING R PACKAGES (HTTPS://COURSERA.ORG/SHARE/7DA3B157049EF8682E7C220780BC976C) - 05/2017**
- **THE R PROGRAMMING ENVIRONMENT (HTTPS://COURSERA.ORG/SHARE/5D9B9CA0E7E25D6F61F78DB18C39B78A) – 04/2017**
- **MASTERING SOFTWARE DEVELOPMENT IN R (HTTPS://COURSERA.ORG/SHARE/3E609BFAD9F70F38D8AA1E2F2B57A7D9) – 04/2017**
- **APPLIED PLOTTING, CHARTING & DATA REPRESENTATION IN PYTHON (HTTPS://WWW.COURSERA.ORG/ACCOUNT/ACCOMPLISHMENTS/CERTIFICATE/NNZ4TFHSR736) – 04/2017**
- **INTRODUCTION TO DATA SCIENCE IN PYTHON (HTTPS://WWW.COURSERA.ORG/ACCOUNT/ACCOMPLISHMENTS/CERTIFICATE/RZTQNSTQRSH9) – 12/2016**
- **APPLIED DATA SCIENCE WITH PYTHON (HTTPS://COURSERA.ORG/SHARE/1563D8B1A4EEDBACDEFA0B479468DB0F) - 09/016**

LICENÇA PROFISSIONAL

CONFE – CONSELHO FEDERAL DE ESTATÍSTICA

NÚMERO DA LICENÇA: 11452

ARTIGOS PUBLICADOS

- **LIKELIHOOD ANALYSIS FOR A CLASS OF SIMPLEX MIXED MODELS**
  Chilean Journal of Statistics, Vol. 9, No. 2, September 2018, 3-17
  09/2018 – CHILE

TRABALHO VOLUNTÁRIO

- **IGREJA BATISTA AMOR E GRAÇA (IBAG)**
  TÉCNICO DE SOM E PROJEÇÃO
  2022 a 2024 – PIRAQUARA, PARANÁ, BRASIL

OUTRAS HABILIDADES

- **TÉCNICO EM INFORMÁTICA**
  FERRAMENTAS PARA MANUTENÇÃO AVANÇADA – ELABORATA – CURITIBA/PR – 09/2007 (15 HORAS / AULA)
  CERTIFICAÇÃO: MONTAGEM E MANUTENÇÃO DE MICROCOMPUTADORES – CURITIBA/PR – 09/2007 (45 HORAS / AULA)
  CERTIFICAÇÃO: REDES LOCAIS – CURITIBA/PR – 04/2007 (24 HORAS / AULA)
  CERTIFICAÇÃO: MANUTENÇÃO DE MICROS – RECIFE/PE – 04/2002 (40 HORAS / AULA)
  CERTIFICAÇÃO: INTERNEY – RECIFE/PE – 04/2002 (40 HORAS / AULA)

- **MECÂNICO DE REFRIGERAÇÃO**
  CERTIFICAÇÃO: REFRIGERAÇÃO / SALESIANOS-ESCOLA DOM BOSCO DE ARTES E OFÍCIOS – RECIFE/PE – 12/2002 (320 HORAS/AULA)

JULHO 2025



José Evandeilton Lopes

Address to access this CV: http://lattes.cnpq.br/3693089841021462 ID Lattes: **3693089841021462**
Last update of resume on 12/06/2024

PhD candidate at PPGMNE/UFPR. Holds a Bachelor's degree in Statistics from the Federal University of Paraná (2013) and a Master's degree in Statistics from PPGMNE/PRODUCTION ENGINEERING at the Federal University of Paraná (2023). Currently a data science consultant at Stix Fidelidade e Inteligência S.A. Has experience in the field of Probability and Statistics, with an emphasis on Probability and Statistics, working mainly on the following topics: Gaussian-Hermite and Laplace integration, life and water quality, data science, simplex mixed model, and numerical integration. **(Text provided by the author)**

Personal Information

Name

José Evandeilton Lopes

Name in bibliographic citations

LOPES, J. E.;EVANDEILTON, J. L.

Lattes iD

http://lattes.cnpq.br/3693089841021462

Country of Nationality

Brazil

Address

Business Address

Linkedin: https://www.linkedin.com/in/evandeilton/

Stix Fidelidade e Inteligência S.A..
Alameda Araguaia
Alphaville Industrial
06455000 - Barueri, SP - Brazil
Phone: (011) 4007160
URL da Homepage: https://www.soustix.com.br/

Social Media

Formal Education/Degree

2024

PhD in progress in NUMERICAL METHODS IN ENGINEERING.
Federal University of Paraná, UFPR, Brazil.
Title: Bayesian Networks

Advisor: Wagner Hugo Bonat.
Keywords: Bayesian networks; graphs; probabilistic networks; Bayesian learning.
Major Field: Engineering

2021 - 2023

Master's Degree in PRODUCTION ENGINEERING.
Federal University of Paraná, UFPR, Brazil.
Title: BETA REGRESSION MODELS FOR SCALE DATA, Year of Degree: 2023.
Advisor: WAGNER HUGO BONAT.
Keywords: regression; beta; scale data.
Major Field: Engineering
Major Field: Exact and Earth Sciences / Field: Probability and Statistics / Subfield: Applied Probability and Statistics.

2009 - 2013

Bachelor's Degree in Statistics.
Federal University of Paraná, UFPR, Brazil.
Title: SIMPLEX AND MIXED SIMPLEX REGRESSION MODELS WITH APPLICATIONS.
Advisor: Wagner Hugo Bonat.

1999 - 2001

High School (Secondary Education).
Humberto Lins Barradas School, EHLB, Brazil.

Complementary Education

2017 - 2018

Mastering Software Development in R. (Workload: 100h).
University of Michigan, UMICH, United States.

2017 - 2018

Mastering Software Development in R. (Workload: 100h).
University of Michigan, UMICH, United States.

2014 - 2016

MBA in Business Intelligence. (Workload: 500 hours).
Positivo University, POSITIVO, Brazil.

Professional Experience

Udemy, UDEMY, United States.

Institutional affiliation

2017 - 2018

Position: , Job Title:

Global Village Telecom, GVT, Brazil.

Institutional affiliation

2014 - 2015

Position: Employee, Job Title: Senior IT Capacity Analyst, Workload: 40 hours per week, Employment type: Full-time.

Other Information

Application of Statistics in IT Capacity Analysis; - Construction and analysis of capacity indicators aimed at reducing the number of recorded incidents and predicting risk factors inherent to the process; - Projection indicators and system performance indicators; - Applications of time series in improving the performance of projection indicators; - Technical studies applying statistical tools with a focus on the business; - Creation and implementation of codes and routines in R language for solving computationally intensive problems, such as analyzing thousands of variables in a Server environment with R-Oracle integration; - Reports in PL/SQL to investigate opportunities for improvement in capacity processes; - Presentations and reports for decision making with Office 2010 and other appropriate tools.

HSBC Bank Brasil, HSBC, Brazil.

Institutional affiliation

2013 - 2014

Position: Employee, Job Title: Senior Credit Analyst, Hours: 40, Employment Type: Full-time

Institutional affiliation

2012 - 2013

Position: Scholarship holder, Job Title: Intern - Modeling, Workload: 36 hours per week

O Boticário Franchising, O BOTICÁRIO, Brazil.

Institutional affiliation

2015 - 2017

Position: Employee, Job Title: Franchising Analyst, Workload: 40 hours per week, Employment Type: Full-time.

BoaVista SCPC - Soluções de Crédito, BVS, Brazil.

Institutional affiliation

2017 - 2018

Position: CLT (Consolidation of Labor Laws) employee, Job Title: Senior Product Analyst, Workload: 40, Employment Type: Full-time.

Other Information

Main activities - Creation and updating of MIS for monitoring statistical models; - Monitoring of statistical models and preparation of performance and stability reports; - Application of Business Intelligence with the support of statistical tools to leverage the performance of MIS processes and monitoring.

Clearsale, CS, Brazil.

Institutional affiliation

2018 - 2021

Position: CLT, Job Title: CLT employee, Workload: 40 hours per week, Employment type: Full-time.

Other Information

Risk and fraud modeling analyst

Stix Fidelidade e Inteligência S.A., STIX, Brazil.

Institutional affiliation

2024 - Atual

Position: CLT employee, Job Title: Data Science Consultant, Workload: 40 hours per week

Other Information

Researcher in Computer Science and Information

Technology. Developing statistical

and machine learning models.

Teaching Projects

2017 - 2018

R IN PRACTICE: Data Wrangling with R for Data Science

Description: R in Practice is a carefully designed course to help anyone who wants to learn, improve, or update their knowledge of R and thus excel in discovering knowledge through data. Our approach is a mix of theory and practice combined and applied to real-life data analysis situations. We will start with the basics of R and then move on to the knowledge discovery cycle, which ranges from data collection to the presentation of results, always with a view to discovering knowledge. https://www.udemy.com/r-na-pratica-ciencia- de-dados/?instructorPreviewMode=guest.
Status: Completed; Nature: Teaching

Members: José Evandeilton Lopes - Coordinator.

Areas of Expertise

1.

Major field: Exact and Earth Sciences / Field: Probability and Statistics.

2.

Major field: Exact and Earth Sciences / Field: Probability and Statistics / Subfield: Probabilistic credit risk models for banks.

3.

Major field: Exact and Earth Sciences / Field: Probability and Statistics / Subfield: Time series models.

4.

Major field: Exact and Earth Sciences / Field: Computer Science / Subfield: Capacity Planning.

5.

Major field: Exact and Earth Sciences / Field: Computer Science / Subfield: Dashboards and automation.

Languages

English

Comprehends fairly, speaks fairly, reads fairly, writes fairly.

Spanish

Comprehends fairly, Basic speaking skills, reads fairly, Basic writing skills.

French

Comprehends fairly, speaks fairly, reads fairly, writes fairly.

Publications

Bibliographic Production

Full articles published in journals

Sort By

Chronological Order

1.

BONAT, W. H. ; **LOPES, J. E.** ; SHIMAKURA, S. E. ; Ribeiro Jr, P. . Likelihood analysis for a class of simplex mixed models. Chilean Journal of Statistics JCR, v. Volume 9, p. 3-17, 2018. **Citations:** WEB OF SCIENCE ℠ 8

Work Presentations

1.

LOPES, J. E.. Research Techniques. 2013. (Work Presentation /Other).

2.

LOPES, J. E.. Sampling Concepts. 2013. (Work Presentation/Other).

3.

LOPES, J. E.. Presentation of Term Paper. 2013. (Term Paper Presentation/Communication).

Technical production

Unregistered computer programs

1.

LOPES, J. E... cvforecast. 2016.

Other types of technical production

1.

LOPES, J. E... R IN PRACTICE: Introduction to Statistics for Data Science. 2019. (Development of teaching or instructional material - E-book for Statistics Education).

2.

LOPES, J. E... DATA ANALYSIS PREVALENCE OF ASTHMA IN 13- AND 14-YEAR-OLD ADOLESCENTS IN CURITIBA. 2016. (Research report).

3.

LOPES, J. E... ANALYSIS OF DATA FROM PATIENTS WHO UNDERWENT BREAST REMOVAL SURGERY - FACTORS THAT NEGATIVELY IMPACT THE BCCT. 2015. (Research report).

4.

LOPES, J. E... ANALYSIS OF POSTOPERATIVE DATA FROM PATIENTS WHO UNDERWENT BARIATRIC SURGERY. 2015. (Research report).

5.

LOPES, J. E... EVALUATION OF BODY COMPOSITION, FOOD CONSUMPTION, AND LIPID PROFILE OF A GROUP OF ADULTS RESIDING IN THE WITMARSUM COLONY - PR. 2015. (Research report).

Events

Participation in events, congresses, exhibitions, and fairs

1.

1st CONEST - Statistics Conference. 2012. (Symposium).

2.

20th SINAPE. 2012. (Congress).

3.

Mini-course: Mixed Longitudinal Models. 2012. (Other).

Innovation

Unregistered computer program

1.

LOPES, J. E.. cvforecast. 2016.

Page generated by the Lattes Curriculum System on 07/31/2025 at 08:32:20 p.m.
Only the data identified as public by the author are displayed in this Lattes Curriculum query.
Privacy settings on the Lattes Platform.

I, Pedro Peski Ribeiro Lopes, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ **Date: February 23, 2026.**



José Evandeilton Lopes

Endereço para acessar este CV: http://lattes.cnpq.br/3693089841021462
ID Lattes: **3693089841021462**
Última atualização do currículo em 06/12/2024

Doutorando pelo PPGMNE/UFPR. Possui graduação em Bacharelado em Estatística pela Universidade Federal do Paraná (2013) e mestrado em Estatística pelo PPGMNE/ENGENHARIA DE PRODUÇÃO pela Universidade Federal do Paraná (2023). Atualmente é consultor ciência de dados - Stix Fidelidade e Inteligência S.A.. Tem experiência na área de Probabilidade e Estatística, com ênfase em Probabilidade e Estatística, atuando principalmente nos seguintes temas: integração gauss hermite e laplace, life and water quality, data science, modelo misto simplex e numerical integration. **(Texto informado pelo autor)**

Identificação

Nome

José Evandeilton Lopes

Nome em citações bibliográficas

LOPES, J. E.;EVANDEILTON, J. L.

Lattes iD

http://lattes.cnpq.br/3693089841021462

País de Nacionalidade

Brasil

Endereço

Endereço Profissional

Linkedin: https://www.linkedin.com/in/evandeilton/

Stix Fidelidade e Inteligência S.A..
Alameda Araguaia
Alphaville Industrial
06455000 - Barueri, SP - Brasil
Telefone: (011) 4007160
URL da Homepage: https://www.soustix.com.br/

Redes Sociais

Formação acadêmica/titulação

2024

Doutorado em andamento em MÉTODOS NUMÉRICOS EM ENGENHARIA.
Universidade Federal do Paraná, UFPR, Brasil.
Título: Redes Bayesianas

Orientador: Wagner Hugo Bonat.
Palavras-chave: redes bayesianas,; grafos; redes probabilísticas; aprendizado bayesiano.
Grande área: Engenharias

2021 - 2023

Mestrado em ENGENHARIA DE PRODUÇÃO.
Universidade Federal do Paraná, UFPR, Brasil.
Título: MODELOS DE REGRESSÃO BETA PARA DADOS DE ESCALA, Ano de Obtenção: 2023.
Orientador: WAGNER HUGO BONAT.
Palavras-chave: regressão beta; dado de escala.
Grande área: Engenharias
Grande Área: Ciências Exatas e da Terra / Área: Probabilidade e Estatística / Subárea: Probabilidade e Estatística Aplicadas.

2009 - 2013

Graduação em Bacharelado em Estatística.
Universidade Federal do Paraná, UFPR, Brasil.
Título: MODELOS DE REGRESSÃO SIMPLEX E SIMPLEX MISTO COM APLICAÇÕES.
Orientador: Wagner Hugo Bonat.

1999 - 2001

Ensino Médio (2º grau).
Escola Humberto Lins Barradas, EHLB, Brasil.

Formação Complementar

2017 - 2018

Mastering Software Development in R. (Carga horária: 100h).
University of Michigan, UMICH, Estados Unidos.

2017 - 2018

Mastering Software Development in R. (Carga horária: 100h).
University of Michigan, UMICH, Estados Unidos.

2014 - 2016

MBA em Business Inteligence. (Carga Horária: 500h).
Universidade Positivo, POSITIVO, Brasil.

Atuação Profissional

Udemy, UDEMY, Estados Unidos.

Vínculo institucional

2017 - 2018

Vínculo: , Enquadramento Funcional:

Global Village Telecom, GVT, Brasil.

Vínculo institucional

2014 - 2015

Vínculo: Funcionário, Enquadramento Funcional: Analista de Capacidade IT Sênior, Carga horária: 40, Regime: Dedicação exclusiva.

Outras informações

Aplicação da Estatística na Análise de Capacidade IT; - Construção e análise de Indicadores de capacidade visando redução do número de incidentes registrados e prevendo fatores de risco inerentes ao processo; - Indicadores de projeções e sinalizadores de performance de sistemas; - Aplicações de séries temporais na melhora da performance de indicadores de projeção; - Estudos técnicos aplicando ferramentas estatísticas com foco no negócio; - Criação e implementação de códigos e rotinas em linguagem R para solução de problemas computacionalmente intensos, como por exemplo: análise de milhares de variáveis em ambiente Server com integração R-Oracle; - Relatórios em PL/SQL para investigação de oportunidades de melhoria nos processos de capacidade; - Apresentações e relatórios para tomada de decisão com pacote Office 2010 e outras ferramentas adequadas.

HSBC Bank Brasil, HSBC, Brasil.

Vínculo institucional

2013 - 2014

Vínculo: Colaborador, Enquadramento Funcional: Analista de Crédito Pleno, Carga horária: 40, Regime: Dedicação exclusiva.

Vínculo institucional

2012 - 2013

Vínculo: Bolsista, Enquadramento Funcional: Estagiário - Modelagem, Carga horária: 36

O Boticário Franchising, O BOTICÁRIO, Brasil.

Vínculo institucional

2015 - 2017

Vínculo: Funcionário, Enquadramento Funcional: Analista de Franchising, Carga horária: 40, Regime: Dedicação exclusiva.

BoaVista SCPC - Soluções de Crédito, BVS, Brasil.

Vínculo institucional

2017 - 2018

Vínculo: Celetista, Enquadramento Funcional: Analista de Produtos SR, Carga horária: 40, Regime: Dedicação exclusiva.

Outras informações

Principais atividades - Criação e Atualização de MIS para monitoramento de modelos estatísticos; - Monitoramento de modelos estatísticos e elaboração de relatórios de performance e estabilidade; - Aplicação de Business Intelligence com apoio de ferramentas estatísticas para alavancar a performance dos processos de MIS e dos monitoramentos.

Clearsale, CS, Brasil.

Vínculo institucional

2018 - 2021

Vínculo: CLT, Enquadramento Funcional: Empregado regime CLT, Carga horária: 40, Regime: Dedicação exclusiva.

Outras informações

Analista de modelagem de risco e fraude

Stix Fidelidade e Inteligência S.A., STIX, Brasil.

Vínculo institucional

2024 - Atual

Vínculo: Celetista, Enquadramento Funcional: Consultor Ciência de Dados, Carga horária: 40

Outras informações

Pesquisador em Ciências da Computação e Informática.Desenvolvendo modelo estatístico

e de Machine Learning

Projetos de ensino

2017 - 2018

R NA PRÁTICA: Data Wrangling com R para Ciência de Dados

Descrição: O R na Prática é um curso cuidadosamente elaborado para ajudar a todos que desejam aprender, melhorar, atualizar seus conhecimentos em R e assim se destacar na descoberta de conhecimentos através de dados. Nossa abordagem é um mix de teoria e prática unidos e aplicados a situações reais de análise de dados. Iniciaremos com os fundamentos básicos de R e na sequência varreremos o ciclo de descoberta de conhecimentos que vai desde a obtenção dos dados à apresentação de resultados visando sempre a descoberta de conhecimentos. https://www.udemy.com/r-na-pratica-ciencia-de-dados/?instructorPreviewMode=guest.
Situação: Concluído; Natureza: Ensino.

Integrantes: José Evandeilton Lopes - Coordenador.

Áreas de atuação

1.

Grande área: Ciências Exatas e da Terra / Área: Probabilidade e Estatística.

2.

Grande área: Ciências Exatas e da Terra / Área: Probabilidade e Estatística / Subárea: Modelos probabilísticos de risco de crédito para banco.

3.

Grande área: Ciências Exatas e da Terra / Área: Probabilidade e Estatística / Subárea: Modelos de séries temporais.

4.

Grande área: Ciências Exatas e da Terra / Área: Ciência da Computação / Subárea: Capacity Planning.

5.

Grande área: Ciências Exatas e da Terra / Área: Ciência da Computação / Subárea: Dashboads e automatização.

Idiomas

Inglês

Compreende Razoavelmente, Fala Razoavelmente, Lê Razoavelmente, Escreve Razoavelmente.

Espanhol

Compreende Razoavelmente, Fala Pouco, Lê Razoavelmente, Escreve Pouco.

Francês

Compreende Razoavelmente, Fala Razoavelmente, Lê Razoavelmente, Escreve Razoavelmente.

Produções

Produção bibliográfica

Artigos completos publicados em periódicos

Ordenar por

Ordem Cronológica

1.

BONAT, W. H. ; **LOPES, J. E.** ; SHIMAKURA, S. E. ; Ribeiro Jr, P. . Likelihood analysis for a class of simplex mixed models. Chilean Journal of Statistics JCR, v. Volume 9, p. 3-17, 2018. **Citações:** WEB OF SCIENCE ℠ 8

Apresentações de Trabalho

1.

LOPES, J. E.. Técnicas de Pesquisa. 2013. (Apresentação de Trabalho/Outra).

2.

LOPES, J. E.. Nocões de Amostragem. 2013. (Apresentação de Trabalho/Outra).

3.

LOPES, J. E.. Apresentação do trabalho de conclusão. 2013. (Apresentação de Trabalho/Comunicação).

Produção técnica

Programas de computador sem registro

1.

LOPES, J. E... cvforecast. 2016.

Demais tipos de produção técnica

1.

LOPES, J. E... R NA PRÁTICA: Introdução à Estatística para Data Science. 2019. (Desenvolvimento de material didático ou instrucional - E-book para Educação estatística).

2.

LOPES, J. E... ANÁLISE DE DADOS PREVALÊNCIA DA ASMA EM ADOLESCENTES DE 13 E 14 ANOS DE IDADE DE CURITIBA. 2016. (Relatório de pesquisa).

3.

LOPES, J. E... ANÁLISE DE DADOS DE PACIENTES SUBMETIDAS A CIRURGIA DE REMOÇÃO DAS MAMAS - FATORES QUE IMPACTAM NEGATIVAMENTE O BCCT. 2015. (Relatório de pesquisa).

4.

LOPES, J. E... ANÁLISE DOS DADOS PÓS-OPERATÓRIOS DE PACIENTES SUBMETIDOS A CIRURGIA BARIÁTRICA. 2015. (Relatório de pesquisa).

5.

LOPES, J. E... AVALIAÇÃO DA COMPOSIÇÃO CORPORAL, DO CONSUMO ALIMENTAR E DO PERFIL LIPIDICO DE UM GRUPO DE ADULTOS RESIDENTES NA COLÔNIA WITMARSUM - PR. 2015. (Relatório de pesquisa).

Eventos

Participação em eventos, congressos, exposições e feiras

1.

1ª CONEST - Confencia de Estatística. 2012. (Simpósio).

2.

20º SINAPE. 2012. (Congresso).

3.

Minicurso: Modelos Longitudinais Mistos. 2012. (Outra).

Inovação

Programa de computador sem registro

1.

LOPES, J. E.. cvforecast. 2016.

Página gerada pelo Sistema Currículo Lattes em 31/07/2025 às 20:32:20
Somente os dados identificados como públicos pelo autor são apresentados na consulta do seu Currículo Lattes.
Configuração de privacidade na Plataforma Lattes

Exhibit B - Eligibility Criteria: Advanced Degree

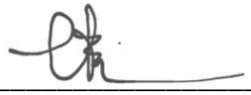
ENROLLMENT STATEMENT

Date of Issue: 07/04/2025

I hereby declare, for all due purposes, that JOSÉ EVANDEILTON LOPES (CPF 04513168439), is a student regularly enrolled (registration number 202100148590) in the Doctoral Program in NUMERICAL METHODS IN ENGINEERING at UFPR, under number 40001016030P0. The referred student joined the Program on 07/29/2024, with the dissertation defense scheduled for 07/29/2028. I hereby issue this declaration as a true statement.

ELEN MIKA TAKATSUKI
Secretariat of the Graduate Program in
NUMERICAL METHODS IN ENGINEERING

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 11, 2025.

DECLARAÇÃO DE MATRÍCULA

Data da emissão: 04/07/2025

Declaro para os devidos fins que JOSÉ EVANDEILTON LOPES (CPF 04513168439), é aluno regularmente matriculado (matrícula número 202100148590) no curso de Doutorado do Programa de Pós-Graduação em MÉTODOS NUMÉRICOS EM ENGENHARIA da UFPR, sob o número 40001016030P0. O referido aluno ingressou no Programa em 29/07/2024, com previsão para defesa da tese em 29/07/2028. Por ser verdade firmo a presente declaração.

ELEN MIKA TAKATSUKI
Secretaria do Programa de Pós Graduação em
MÉTODOS NUMÉRICOS EM ENGENHARIA

MINISTRY OF EDUCATION
DEPARTMENT OF EXACT SCIENCES
FEDERAL UNIVERSITY OF PARANÁ
VICE PRESIDENT'S OFFICE FOR GRADUATE STUDIES
GRADUATE PROGRAM IN NUMERICAL METHODS
IN ENGINEERING - 40001016030P0

Name: JOSÉ EVANDEILTON LOPES			Document: 04513168439
Date of birth: 03/22/1983	Sex: Male	City of birth: Buíque - Pernambuco	
Filiation: LUIZ LOPES DA SILVA and MARIA DAS DORES DA CONCEIÇÃO			

Program: Ph.D. in NUMERICAL METHODS IN ENGINEERING	Enrollment Date: 07/29/2024	Graduation Date: 07/29/2028
Program recognized by Opinion No. 487/2018 CNE/CES - MEC Ordinance 609, Official Gazette of 03/18/2019		
Area of Concentration: MATHEMATICAL PROGRAMMING	Research Line: Statistical Methods	
Foreign Language:		
Advisor: WAGNER HUGO BONAT		
Dissertation title:		

**CNE/CES: National Education Council / Higher Education Chamber - MEC: Brazilian Ministry of Education*

ACADEMIC TRANSCRIPT

Date of issue: 07/04/2025

Code	Subject - Class	Credit Hours	Grade	Attendance (%)	Term	Professor
Electives						
MNUM-7110	ADDITIONAL TOPICS IN STATISTICS II – 2024.2 Topics in Statistical Modeling	60/4	9.5/A	100	2nd Trimester / 2024	PAULO JUSTINIANO RIBEIRO JUNIOR, WAGNER HUGO BONAT
MNUM-7109	ADDITIONAL TOPICS IN STATISTICS I – 2015.1 Practice of Statistical Modeling	60/4	Enrolled	0	1st Trimester / 2025	WAGNER HUGO BONAT
MNUM-7112	STATISTICAL MACHINE LEARNING – 2025.1	60/4	Enrolled	0	1st Trimester / 2025	ANDERSON LUIZ ARA SOUZA

Credit Validations

Code	Subject	Credit Hours	Grade	Attendance (%)	Term	Year - Institution
-	ACADEMIC WRITING IN ENGLISH - EAI REMOTE - 2021.2	60/4	B	81	Elective (Credits Granted)	2024 - UFPR
MNUM-7109	ADDITIONAL TOPICS IN STATISTICS I - MNUM7109 - ADDITIONAL TOPICS IN STATISTICS I - 2022.3 REGRESSION MODELS I	60/4	B	100	Elective (Equivalency)	2024 - UFPR
MNUM-7074	PROBABILITY AND MATHEMATICAL STATISTICS I - MNUM7074 - PROBABILITY AND MATHEMATICAL STATISTICS I - 2022.2	60/4	B	100	Mandatory (Equivalence)	2024 - UFPR
MNUM-7009	NUMERICAL ANALYSIS - MNUM7009 - NUMERICAL ANALYSIS - A	60/4	B	100	Mandatory (Equivalence)	2024 - UFPR
-	MNUM7032 - GUIDED STUDY IN STATISTICS I - ADVANCED TOPICS IN STATISTICAL MODELING	60/4	A	100	Elective (Credits Granted)	2024 - UFPR
MNUM-7126	COMPUTATIONAL METHODS IN STATISTICS AND OPTIMIZATION - MNUM7126 - COMPUTATIONAL METHODS IN STATISTICS AND OPTIMIZATION - A	60/4	A	100	Mandatory (Equivalence)	2024 - UFPR
MNUM-7078	LINEAR PROGRAMMING - MNUM7078 - LINEAR PROGRAMMING - A	60/4	B	100	Mandatory (Equivalence)	2024 - UFPR

Program Credits for Graduation (required/completed) - Mandatory: 9/16 Elective: 32/16 Total: 41/32

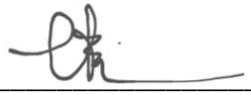
Resolution No. 32/17 - CEPE Letter Grade Scale: A = Excellent (9.0 to 10.0) B = Very Good (8.0 to 8.9) C = Good (7.0 to 7.9) D = Insufficient (0.0 to 6.9)

ELEN MIKA TAKATSUKI

Secretariat of the Graduate Program in

NUMERICAL METHODS in ENGINEERING

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 11, 2025.

MINISTÉRIO DA EDUCAÇÃO
SETOR DE CIÊNCIAS EXATAS
UNIVERSIDADE FEDERAL DO PARANÁ
PRÓ-REITORIA DE PÓS-GRADUAÇÃO
PROGRAMA DE PÓS-GRADUAÇÃO MÉTODOS NUMÉRICOS EM ENGENHARIA - 40001016030P0

Nome: JOSÉ EVANDEILTON LOPES		Documento: 04513168439
Data de Nascimento: 22/03/1983	Sexo: Masculino	Naturalidade: Buíque - Pernambuco
Filiação: LUIZ LOPES DA SILVA e MARIA DAS DORES DA CONCEIÇÃO		

Curso: Doutorado em MÉTODOS NUMÉRICOS EM ENGENHARIA	Data de Matrícula: 29/07/2024	Previsão de Titulação: 29/07/2028
Curso Reconhecido pelo Parecer nº 487/2018 CNE/CES - Portaria MEC 609, D.O.U de 18/03/2019		
Área de Concentração: PROGRAMAÇÃO MATEMÁTICA	Linha de Pesquisa: Métodos Estatísticos	
Lingua Estrangeira:		
Orientador: WAGNER HUGO BONAT		
Titulo da tese:		

HISTÓRICO ESCOLAR

Data de emissão: 04/07/2025

Código	Disciplina - Turma	CH/CR	Conceito	Frequência (%)	Per./Ano	Docente
Eletivas						
MNUM-7110	TÓPICOS ADICIONAIS EM ESTATÍSTICA II - 2024.2 Tópicos em Modelagem estatística	60/4	9.5/A	100	2° Sem./2024	PAULO JUSTINIANO RIBEIRO JUNIOR, WAGNER HUGO BONAT
MNUM-7109	TÓPICOS ADICIONAIS EM ESTATÍSTICA I - 2015.1 Prática de Modelagem Estatística	60/4	Matriculado	0	1° Sem./2025	WAGNER HUGO BONAT
MNUM-7112	APRENDIZADO ESTATÍSTICO DE MÁQUINA - 2025.1	60/4	Matriculado	0	1° Sem./2025	ANDERSON LUIZ ARA SOUZA

Validações de Créditos

Código	Disciplina	CH/CR	Conceito	Frequência (%)	Crédito (Tipo)	Ano - Instituição
-	ESCRITA ACADÊMICA EM INGLÊS - EAI REMOTA - 2021.2	60/4	B	81	Eletivo (Aproveitamento)	2024 - UFPR
MNUM-7109	TÓPICOS ADICIONAIS EM ESTATÍSTICA I - MNUM7109 - TÓPICOS ADICIONAIS EM ESTATÍSTICA I - 2022.3 MODELOS DE REGRESSÃO I	60/4	B	100	Eletivo (Equivalência)	2024 - UFPR
MNUM-7074	PROBABILIDADE E ESTATÍSTICA MATEMÁTICA I - MNUM7074 - PROBABILIDADE E ESTATÍSTICA MATEMÁTICA I - 2022.2	60/4	B	100	Obrigatório (Equivalência)	2024 - UFPR
MNUM-7009	ANÁLISE NUMÉRICA - MNUM7009 - ANÁLISE NUMÉRICA - A	60/4	B	100	Obrigatório (Equivalência)	2024 - UFPR
-	MNUM7032 - ESTUDO DIRIGIDO EM ESTATÍSTICA I - TÓPICOS AVANÇADOS EM MODELAGEM ESTATÍSTICA	60/4	A	100	Eletivo (Aproveitamento)	2024 - UFPR
MNUM-7126	MÉTODOS COMPUTACIONAIS EM ESTATÍSTICA E OTIMIZAÇÃO - MNUM7126 - MÉTODOS COMPUTACIONAIS EM ESTATÍSTICA E OTIMIZAÇÃO - A	60/4	A	100	Obrigatório (Equivalência)	2024 - UFPR
MNUM-7078	PROGRAMAÇÃO LINEAR - MNUM7078 - PROGRAMAÇÃO LINEAR - A	60/4	B	100	Obrigatório (Equivalência)	2024 - UFPR

Créditos de Disciplinas para Titulação (necessários/concluídos) - Obrigatórios: 9/16 Eletivos: 32/16 Total: 41/32

Resolução no. 32/17 - CEPE Conceito: A = Excelente (9.0 a 10.0) B = Muito Bom (8.0 a 8.9) C = Bom (7.0 a 7.9) D = Insuficiente (0.0 a 6.9)

ELEN MIKA TAKATSUKI

Secretaria do Programa de Pós Graduação em

MÉTODOS NUMÉRICOS EM ENGENHARIA

Federative Republic of Brazil

FEDERAL UNIVERSITY OF PARANÁ

Master's Degree Diploma

The President of the Federal University of Paraná, in the exercise of his duties hereby confers upon ***José Evandeilton Lopes****, Brazilian, born in the State of Pernambuco on March 22, 1983, holder of Identity Document No. 045.131.684-39 - SSP/Paraná, the title of* ***Master in Numerical Methods in Engineering****, obtained on August 30, 2023, with all the rights and prerogatives granted by Brazilian law inherent to this title.*

Curitiba, April 2, 2024

Prof. Dr. Ricardo Marcelo Fonseca
President

MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PARANÁ
Vice President's Office for Research and Graduate Studies
Diplomas and Certificates Unit

By delegation of authority from the D.A.U., Ordinance No. 71, of 10/21/1977, Ordinance of SESU No. 30, of 05/23/1979, and pursuant to Ministerial Ordinance No. 726, of 10/21/1977.
Diploma registered under No. **31162**,
Book: **CPG-39**, Page: **22191**, Process: **2024001-012622**.
**D.A.U: Department of University Affairs*

Curitiba, April 2, 2024

By delegation of authority in accordance with Article 6 of Decree No. 83.937/79 and pursuant to Ordinance No. 166/President's Office, of March 4, 2021.

Program Course under CAPES – Code: 40001016030P0, Recognized by Opinion No. **487/2018 CNE/CES** – **MEC Ordinance 609**, published in the **Official Gazette on March 18, 2019**, in accordance with **CAPES** evaluation.

**CAPES: Coordination for the Improvement of Higher Education Personnel*
CNE/CES: National Education Council / Higher Education Chamber
MEC: Brazilian Ministry of Education

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 5, 2025.

República Federativa do Brasil

UNIVERSIDADE FEDERAL DO PARANÁ

Diploma de Mestre

O Reitor da Universidade Federal do Paraná, no uso de suas atribuições, confere a **José Evandeilton Lopes**, brasileiro, natural do Estado de Pernambuco, nascido a 22 de março de 1983, portador da Carteira de Identidade n.o 045.131.684-39 - SSP/PR, o título de **Mestre em Métodos Numéricos em Engenharia**, obtido a 30 de agosto de 2023, com os direitos e prerrogativas concedidos pelas leis brasileiras, inerentes a esse título.

Curitiba, 02 de abril de 2024

Prof. Dr. Ricardo Marcelo Fonseca
Reitor

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PARANÁ
Pró Reitoria de Pesquisa e Pós Graduação
Unidade de Diplomas e Certificados

Por delegação de competência do D.A.U., Portaria n.º 71, de 21/10/77, Portaria da SESU n.º 30, de 23/05/79, e nos termos da Portaria Ministerial n.º 726, de 21/10/77.
Diploma registrado sob n.º **31162**, no
Livro: **CPG-39**, Fls: **22191**, Processo: **2024001-012622**

Curitiba, 02 de abril de 2024

Por delegação de competência de acordo com o art. 6º do Decreto n.º 83.937/79 e nos termos da Portaria n.º 166/Reitoria, de 04 de março de 2021.

Curso do Programa CAPES - Código: 40001016030P0, Reconhecido pelo Parecer n.º **487/2018 CNE/CES - Portaria MEC 609, D.O.U de 18 de março de 2019,** de acordo com a avaliação da **CAPES**

MINISTRY OF EDUCATION
DEPARTMENT OF EXACT SCIENCES
FEDERAL UNIVERSITY OF PARANÁ
VICE PRESIDENT'S OFFICE FOR GRADUATE STUDIES
GRADUATE PROGRAM IN NUMERICAL METHODS
IN ENGINEERING - 40001016030P0

Name: JOSÉ EVANDEILTON LOPES			Document: 04513168439
Date of birth: 03/22/1983	Sex: Male	City of birth: Buíque - Pernambuco	
Filiation: LUIZ LOPES DA SILVA and MARIA DAS DORES DA CONCEIÇÃO			

Program: MASTER IN NUMERICAL METHODS IN ENGINEERING	Enrollment Date: 03/30/2021	**Graduation Date:** 08/30/2023
Program recognized by Opinion No. 487/2018 CNE/CES - MEC Ordinance 609, Official Gazette of 03/18/2019		
Area of Concentration: MATHEMATICAL PROGRAMMING	Research Line: Statistical Methods	
Foreign Language: English		
Advisor: WAGNER HUGO BONAT		
Thesis Title: BETA REGRESSION MODELS FOR SCALE DATA		

**CNE/CES: National Education Council / Higher Education Chamber - MEC: Brazilian Ministry of Education*

ACADEMIC TRANSCRIPT

Date of issue: 07/04/2025

Code	Subject - Class	Credit Hours	Grade	Attendance (%)	Term	Professor
		Mandatory				
MNUM-7126	COMPUTATIONAL METHODS IN STATISTICS AND OPTIMIZATION - A	45/3	9.2/A	100	1st Trimester / 2021	GUSTAVO VALENTIM LOCH, WAGNER HUGO BONAT, WALMES MARQUES ZEVIANI
MNUM-7009	NUMERICAL ANALYSIS - A	45/3	8.0/B	100	3rd Trimester / 2021	LUCAS GARCIA PEDROSO, LUIZ CARLOS MATIOLI
MNUM-7074	PROBABILITY AND MATHEMATICAL STATISTICS I - 2022.2	45/3	7.7/B	100	2nd Trimester / 2022	ANDERSON LUIZ ARA SOUZA, JOSE LUIZ PADILHA DA SILVA, PAULO JUSTINIANO RIBEIRO JUNIOR, WAGNER HUGO BONAT
		Electives				
MNUM-7078	LINEAR PROGRAMMING - A	45/3	8.5/B	100	1st Trimester / 2021	CASSIUS TADEU SCARPIN
MNUM-7032	DIRECTED STUDY IN STATISTICS I - Advanced Topics in Statistical Modeling	45/3	9.5/A	100	2nd Trimester / 2021	WAGNER HUGO BONAT
MNUM-7006	MULTIVARIATE ANALYSIS APPLIED TO RESEARCH - 2022.1	45/3	2.2/D	80	1st Trimester / 2022	ANSELMO CHAVES NETO
MNUM-7096	INDIVIDUAL WORK I - 2022.3	60/4	10.0/A	100	3rd Trimester / 2022	CASSIUS TADEU SCARPIN
MNUM-7109	ADDITIONAL TOPICS IN STATISTICS I - 2022.3 - Regression Models I	45/3	8.2/B	100	3rd Trimester / 2022	ANDERSON LUIZ ARA SOUZA, CESAR AUGUSTO TACONELI, JOSE LUIZ PADILHA DA SILVA
MNUM-7070	TEACHING PRACTICE - 2022.3	15/1	10.0/A	100	3rd Trimester / 2022	WAGNER HUGO BONAT
MNUM-7097	INDIVIDUAL WORK II - 2023.1	60/4	10.0/A	100	1st Trimester / 2023	CASSIUS TADEU SCARPIN
MNUM-7070	TEACHING PRACTICE - 2023.2	15/1	10.0/A	100	2nd Trimester / 2023	WAGNER HUGO BONAT

Credit Validations						
Code	Subject	Credit Hours	Grade	Attendance (%)	Credit (Type)	Year - Institution
-	ACADEMIC WRITING IN ENGLISH - EAI REMOTE - 2021.2	60/4	B	81	Elective (Credits Granted)	2023 - UFPR
-	STATISTICAL METHODS IN SCIENTIFIC RESEARCH - MEPC - REMOTE - 2022.1	60/4	C	75	Elective (Credits Granted)	2023 - UFPR

Program Credits for Graduation (required/completed) - Mandatory: 9/9 Elective: 15/27 Total: 24/36

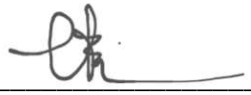
Resolution No. 32/17 - CEPE Letter Grade Scale: A = Excellent (9.0 to 10.0) B = Very Good (8.0 to 8.9) C = Good (7.0 to 7.9) D = Insufficient (0.0 to 6.9)

ELEN MIKA TAKATSUKI

Secretariat of the Graduate Program in

NUMERICAL METHODS IN ENGINEERING

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 8, 2025.

MINISTÉRIO DA EDUCAÇÃO
SETOR DE CIÊNCIAS EXATAS
UNIVERSIDADE FEDERAL DO PARANÁ
PRÓ-REITORIA DE PÓS-GRADUAÇÃO
PROGRAMA DE PÓS-GRADUAÇÃO MÉTODOS NUMÉRICOS EM ENGENHARIA - 40001016030P0

Nome: JOSÉ EVANDEILTON LOPES		Documento: 04513168439
Data de Nascimento: 22/03/1983	Sexo: Masculino	Naturalidade: Buíque - Pernambuco
Filiação: LUIZ LOPES DA SILVA e MARIA DAS DORES DA CONCEIÇÃO		

Curso: Mestrado em MÉTODOS NUMÉRICOS EM ENGENHARIA	Data de Matrícula: 30/03/2021	**Data de Titulação:** 30/08/2023
Curso Reconhecido pelo Parecer nº 487/2018 CNE/CES - Portaria MEC 609, D.O.U de 18/03/2019		
Área de Concentração: PROGRAMAÇÃO MATEMÁTICA	Linha de Pesquisa: Métodos Estatísticos	
Lingua Estrangeira: Inglês		
Orientador: WAGNER HUGO BONAT		
Titulo da Dissertação: MODELOS DE REGRESSÃO BETA PARA DADOS DE ESCALA		

HISTÓRICO ESCOLAR

Data de emissão: 04/07/2025

Código	Disciplina - Turma	CH/CR	Conceito	Frequência (%)	Per./Ano	Docente
	Obrigatórias					
MNUM-7126	MÉTODOS COMPUTACIONAIS EM ESTATÍSTICA E OTIMIZAÇÃO - A	45/3	9.2/A	100	1° Trim./2021	GUSTAVO VALENTIM LOCH, WAGNER HUGO BONAT, WALMES MARQUES ZEVIANI
MNUM-7009	ANÁLISE NUMÉRICA - A	45/3	8.0/B	100	3° Trim./2021	LUCAS GARCIA PEDROSO, LUIZ CARLOS MATIOLI
MNUM-7074	PROBABILIDADE E ESTATÍSTICA MATEMÁTICA I - 2022.2	45/3	7.7/B	100	2° Trim./2022	ANDERSON LUIZ ARA SOUZA, JOSE LUIZ PADILHA DA SILVA, PAULO JUSTINIANO RIBEIRO JUNIOR, WAGNER HUGO BONAT
	Eletivas					
MNUM-7078	PROGRAMAÇÃO LINEAR - A	45/3	8.5/B	100	1° Trim./2021	CASSIUS TADEU SCARPIN
MNUM-7032	ESTUDO DIRIGIDO EM ESTATÍSTICA I - Tópicos avançados em modelagem estatística	45/3	9.5/A	100	2° Trim./2021	WAGNER HUGO BONAT
MNUM-7006	ANÁLISE MULTIVARIADA APLICADA À PESQUISA - 2022.1	45/3	2.2/D	80	1° Trim./2022	ANSELMO CHAVES NETO
MNUM-7096	TRABALHO INDIVIDUAL I - 2022.3	60/4	10.0/A	100	3° Trim./2022	CASSIUS TADEU SCARPIN
MNUM-7109	TÓPICOS ADICIONAIS EM ESTATÍSTICA I - 2022.3 Modelos de Regressão I	45/3	8.2/B	100	3° Trim./2022	ANDERSON LUIZ ARA SOUZA, CESAR AUGUSTO TACONELI, JOSE LUIZ PADILHA DA SILVA
MNUM-7070	PRATICA DE DOCÊNCIA - 2022.3	15/1	10.0/A	100	3° Trim./2022	WAGNER HUGO BONAT
MNUM-7097	TRABALHO INDIVIDUAL II - 2023.1	60/4	10.0/A	100	1° Trim./2023	CASSIUS TADEU SCARPIN
MNUM-7070	PRATICA DE DOCÊNCIA - 2023.2	15/1	10.0/A	100	2° Trim./2023	WAGNER HUGO BONAT

Validações de Créditos

Código	Disciplina	CH/CR	Conceito	Frequência (%)	Crédito (Tipo)	Ano - Instituição
-	ESCRITA ACADÊMICA EM INGLÊS - EAI REMOTA - 2021.2	60/4	B	81	Eletivo (Aproveitamento)	2023 - UFPR
-	MÉTODOS ESTATÍSTICOS EM PESQUISA CIENTÍFICA - MEPC - REMOTA 2022.1	60/4	C	75	Eletivo (Aproveitamento)	2023 - UFPR

Créditos de Disciplinas para Titulação (necessários/concluídos) - Obrigatórios: 9/9 Eletivos: 15/27 Total: 24/36

Resolução no. 32/17 - CEPE Conceito: A = Excelente (9.0 a 10.0) B = Muito Bom (8.0 a 8.9) C = Bom (7.0 a 7.9) D = Insuficiente (0.0 a 6.9)

ELEN MIKA TAKATSUKI

Secretaria do Programa de Pós Graduação em

MÉTODOS NUMÉRICOS EM ENGENHARIA

STATEMENT OF COMPLETED COURSES

I hereby declare that JOSÉ EVANDEILTON LOPES was a student in the Master's Program in **NUMERICAL METHODS IN ENGINEERING** at the Federal University of Paraná, having completed the following courses:

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7070	2023	TEACHING PRACTICE	A	100	Approved	1 (15 hours)	2nd Trimester
Syllabus							
The student must undertake a teaching internship in undergraduate Engineering programs, including research, preparation of didactic technical lectures, delivering these lectures in undergraduate courses, and preparing and managing students in the courses taught.							
Bibliography							
Variable.							

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7097	2023	INDIVIDUAL ASSIGNMENT II	A	100	Approved	4 (60 hours)	1st Trimester
Syllabus							
Seminar in either in-person or remote format, as determined by the program coordination. The master's student must produce and submit a video of approximately 15 minutes to be presented to the advisor and the external community, showcasing the research results. The email with the video must include an authorization in the body of the email for the video to be published on PPGMNE's (Graduate Program in Numerical Methods in Engineering) social media and website.							
Bibliography							
Variable.							

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7070	2022	TEACHING PRACTICE	A	100	Approved	1 (15 hours)	3rd Trimester
Syllabus							
The student must undertake a teaching internship in undergraduate Engineering programs, involving research, preparation of didactic technical lectures, delivering these lectures in undergraduate program courses, and the preparation and management of students in the courses taught.							
Bibliography							
Variable.							

Code	Year		Grade	Attend. (%)	Status	Credits	Term
MNUM7109	2022	ADDITIONAL TOPICS IN STATISTICS I	B	100	Approved	3 (45 hours)	3rd Trimester

Syllabus

Syllabus: Linear regression model; Generalized linear models; Generalized additive models; Nonparametric regression.

Technological resources: The computational structure of the Statistics Laboratory will be used, consisting of a room with multimedia resources and two computer labs (labs A and B), all located in Block PA, Exact Sciences sector (Polytechnic Center - UFPR).

Bibliography

To be defined by the professor.

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7096	2022	INDIVIDUAL ASSIGNMENT I	A	100	Approved	4 (60 hours)	3rd Trimester

Syllabus

Seminar in either in-person or remote format, as determined by the program coordination. The master's student must produce and submit a video of approximately 15 minutes to be presented to the advisor and the external community, outlining the research topic, research proposal, and literature review to be developed during the program. The email with the video must include an authorization in the body of the email for the video to be published on PPGMNE's social media and website.

Bibliography

Variable

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7074	2022	PROBABILITY AND MATHEMATICAL STATISTICS I	B	100	Approved	3 (45 hours)	2nd Trimester

Syllabus

Probability and random variables, probability functions, probability density. Random vectors, joint, marginal, and conditional distributions. Expectation, variance, and covariance. Main univariate and multivariate probability distributions. Functions of random variables, moment-generating function, cumulants, and characteristic function. Inequalities, convergence of random variables, and the central limit theorem. Statistical modeling and inference. Maximum likelihood method and its properties. Bayesian inference.

Bibliography

Wood, S. (2015). Index. In Core Statistics (Institute of Mathematical Statistics Textbooks, pp. 245–250). Cambridge: Cambridge University Press.

Silvey, S. D. (1970). Statistical Inference. London: Chapman & Hall.

De Groot, M. H. and M. J. Schervish (2002). Probability and Statistics. Boston: Addison-Wesley.

Cox, D. R. and D. V. Hinkley (1974). Theoretical Statistics. London: Chapman & Hall.

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7006	2022	MULTIVARIATE ANALYSIS APPLIED TO RESEARCH	D	80	Failed	3 (45 hours)	1st Trimester

Syllabus

Matrix algebra. Operations with matrices and vectors. Determinant of a square matrix. Inverse matrix. Simultaneous linear equations. Multivariate analysis of variance. General multivariate linear model. Multivariate analysis of covariance. Classification using linear discriminant function and groups of linear discriminant functions. Influence through the covariance matrix. Hypothesis testing using a covariance matrix. Tests of independence among groups of variables. Canonical correlation. Principal components. Factor analysis. Cluster analysis.

Bibliography

1. Anderson, T. W. An Introduction to Multivariate Statistical Analysis. J. Wiley, NY, 1984.
2. Chatfield, C. and Collins, A. J. Introduction to Multivariate Analysis. Chapman & Hall, London, 1992.
3. Johnson, R. A. and Wichern, D. W. Applied Multivariate Statistical Analysis. Prentice Hall, Englewood Cliffs, 1988.
4. Mardia, K. M.; Kent, J. T. and Bibby, J. M. Multivariate Analysis. Academic Press, London, 1979.
5. Morrison, D. F. Multivariate Statistical Methods. McGraw-Hill, Tokyo, 1976.
6. Bown, Sing-Tze. Pattern Recognition and Image Preprocessing. Marcel Dekker Inc., 1972.
7. Schalkoff, R. J. Pattern Recognition: Statistical, Structural and Neural Approaches. John Wiley & Sons Inc., 1992.
9. Duda, R. & Hart, P. E. Pattern Classification and Scenes Analysis. John Wiley & Sons Inc., 1991.

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7009	2021	NUMERICAL ANALYSIS	B	100	Approved	3 (45 hours)	3rd Trimester

Syllabus

Norms, error propagation, perturbations, stopping criteria, Taylor
Zeros of functions: Bisection, Newton, Quasi-Newton
Direct methods for Linear Systems: Gaussian elimination, LU, Cholesky, Conjugate gradients
Iterative methods for Linear Systems: Jacobi, Gauss-Seidel, SOR
Polynomial interpolation: Lagrange, Newton, Hermite, splines
Integration: Trapezoidal, Simpson, Newton-Cotes, Gauss

Bibliography

G. W. Stewart. Afternotes on Numerical Analysis. 1st edition. SIAM, 1996.

Watkins. Fundamentals of Matrix Computations. 3rd edition. Wiley, 2010.

R. Burden. Numerical Analysis. Cengage Learning. 3rd edition. 2016.

G. H. Golub, C. F. van Loan. Matrix Computations. 4th edition. Johns Hopkins University Press, 2013.

B. N. Datta. Numerical Linear Algebra and Applications. 2nd edition. SIAM, 2010.

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7032	2021	DIRECTED STUDY IN STATISTICS I	A	100	Approved	3 (45 hours)	2nd Trimester

Syllabus

Generalized linear models.
Quasi-likelihood and estimation functions.
Conditional and marginal models.
Tweedie regression models and extensions.
Poisson-Tweedie regression models and extensions.
Quasi-beta regression models and extensions.
Multivariate linear regression model.
Multivariate generalized linear covariance model.
Computational implementation.
Multivariate regression models for family and twin data.

Bibliography

To be defined by the professor.

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7126	2021	COMPUTATIONAL METHODS IN STATISTICS AND OPTIMIZATION	A	100	Approved	3 (45 hours)	1st Trimester

Syllabus

Introduction to C++, programming development environments, basic operations, pointers and memory, functions, queues and vectors, stacks, sorting.
Introduction to the statistical computing language R. Arithmetic with objects, vector class R, matrices, lists and tables, control and repetition structures, functions, probability distributions parametric function plots, data import, exploratory analysis, topics in high-efficiency programming, topics in optimization.

Bibliography

Deitel, H. M., & Deitel, P. J. (1992). C++: How to Program. Prentice-Hall, Inc.

Grolemund, G. (2014). Hands-On Programming with R. Sebastopol, California: O'Reilly Media, Safari Books Online.

Matloff, N. (2011). The Art of R Programming: Tour of Statistical Software Design. San Francisco: No Starch Press.

Morin, P. Open Data Structures (in C++).

Gillespie, C., & Lovelace, R. (2016). Efficient R Programming: A Practical Guide to Smarter Programming. Sebastopol, CA: O'Reilly Media.

Snaith, P. (1999). C++ for Dummies Step by Step. Rio de Janeiro: Editora Ciência Moderna Ltda. Snaith,

Stroustrup, B. (2014). Programming: Principles and Practice Using *C++*. Pearson Education.

Code	Year	Subject	Grade	Attend. (%)	Status	Credits	Term
MNUM7078	2021	LINEAR PROGRAMMING	B	100	Approved	3 (45 hours)	1st Trimester

Syllabus

Formulation of Linear Programming Problems. The Simplex Method. Revised Simplex Method. The Dual Simplex Method. The Primal-Dual Method. Sensitivity Analysis. Degeneracy in Linear Programming. Linear Programs with Bounded Variables.

Bibliography

1. Murty, Katta G. Linear Programming. New York, John Wiley & Sons, 1983.
2. Lasdon, L.S. Optimization Theory for Large Systems. London, The Macmillan Company, 1972.
3. Simonnard, M.; Jewell, W.S. Linear Programming. Englewood Cliffs, 1974.
4. Bradley, S.P.; Hax, A.C.; Magnanti, T.L. Applied Mathematical Programming. Menlo Park, California, Addison-Wesley, 1977.
5. Ziotns, S. Linear and Integer Programming. New Jersey, Prentice-Hall, 1974.
6. Wagner, H.M. Principles of Operations Research. Englewood Cliffs, N.J., Prentice-Hall, 1975.

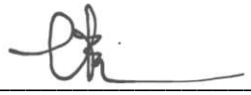
Journals:
Operational Research
Operational Investigation
Operations Research
Optimization Methods and Software
Management Sciences
Mathematical Programming
Interfaces
Technological Information
European Journal of Operational Research

Grades: 9.0 to 10.0 = A; 8.0 to 8.9 = B; 7.0 to 7.9 = C; 0 to 6.9 = D = Failed.

Curitiba, July 4, 2025.

ELEN MIKA TAKATSUKI
Secretariat of the Graduate Program in NUMERICAL METHODS IN ENGINEERING

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 8, 2025.

DECLARAÇÃO DE DISCIPLINAS CURSADAS

Declaro que JOSÉ EVANDEILTON LOPES foi aluno(a) no Curso de Mestrado em MÉTODOS NUMÉRICOS EM ENGENHARIA da Universidade Federal do Paraná, tendo cursado as seguintes disciplinas:

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7070	2023	PRATICA DE DOCÊNCIA	A	100	Aprovado	1 (15 horas)	2° Trimestre

Ementa

O aluno deverá fazer estágio de docência nos cursos de graduação em Engenharia, compreendendo a pesquisa, a preparação de aulas expositivas técnicas didáticas, ministrar essas aulas em disciplinas da graduação e a preparação e administração de alunos nas disciplinas ministradas.

Bibliografia

Variável.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7097	2023	TRABALHO INDIVIDUAL II	A	100	Aprovado	4 (60 horas)	1° Trimestre

Ementa

Seminário no formato presencial ou remoto, conforme determinado pela coordenação. O mestrando deverá produzir e enviar um vídeo de aproximadamente 15 minutos para ser apresentado ao orientador e à comunidade externa expondo os resultados obtidos com a pesquisa. O e-mail com o vídeo deve ser acompanhado de uma autorização no corpo do e-mail para publicação do vídeo nas redes sociais do PPGMNE e no site do PPGMNE.

Bibliografia

Variável

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7070	2022	PRATICA DE DOCÊNCIA	A	100	Aprovado	1 (15 horas)	3° Trimestre

Ementa

O aluno deverá fazer estágio de docência nos cursos de graduação em Engenharia, compreendendo a pesquisa, a preparação de aulas expositivas técnicas didáticas, ministrar essas aulas em disciplinas da graduação e a preparação e administração de alunos nas disciplinas ministradas.

Bibliografia

Variável.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7109	2022	TÓPICOS ADICIONAIS EM ESTATÍSTICA I	B	100	Aprovado	3 (45 horas)	3° Trimestre

Ementa

Ementa: Modelo de regressão linear; Modelos lineares generalizados; Modelos generalizados aditivos; Regressão não paramétrica.

Recursos tecnológicos: Será usada a estrutura computacional do Laboratório de Estatística, composta por uma sala com recursos multimídia e dois laboratórios de informática (laboratórios A e B), todos localizados no bloco PA, setor de Ciências Exatas (Centro Politécnico- UFPR).

Bibliografia

A ser definido pelo docente.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7096	2022	TRABALHO INDIVIDUAL I	A	100	Aprovado	4 (60 horas)	3° Trimestre

Ementa

Seminário no formato presencial ou remoto, conforme determinado pela coordenação. O mestrando deverá produzir e enviar um vídeo de aproximadamente 15 minutos para ser apresentado ao orientador e à comunidade externa expondo a delimitação do tema, proposta de pesquisa e revisão bibliográfica que serão desenvolvidas durante o curso. O e-mail com o vídeo deve ser acompanhado de uma autorização no corpo do e-mail para publicação do vídeo nas redes sociais do PPGMNE e no site do PPGMNE.

Bibliografia

Variável

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7074	2022	PROBABILIDADE E ESTATÍSTICA MATEMÁTICA I	B	100	Aprovado	3 (45 horas)	2° Trimestre

Ementa

Probabilidade e variáveis aleatórias, funções de probabilidade, densidade probabilidade. Vetores aleatórios, distribuição conjunta, marginal e condicional. Esperança, variância e covariância. Principais distribuições de probabilidade univariada e multivariadas. Funções de variáveis aleatórios, função geradora de momentos, cumulantes e característica. Desigualdades, convergência de variáveis aleatórios e teorema do limite central. Modelagem estatística e inferência. Método da máxima verossimilhança e suas propriedades. Inferência Bayesiana.

Bibliografia

Wood, S. (2015). Index. In Core Statistics (Institute of Mathematical Statistics Textbooks, pp. 245-250). Cambridge: Cambridge University Press.

Silvey, S. D. (1970). Statistical Inference. London: Chapman & Hall.

De Groot, M. H. and M. J. Schervish (2002). Probability and statistics. Boston: Addison-Wesley.

Cox, D. R. and D. V. Hinkley (1974). Theoretical Statistics. London: Chapman & Hall

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7006	2022	ANÁLISE MULTIVARIADA APLICADA À PESQUISA	D	80	Reprovado	3 (45 horas)	1° Trimestre

Ementa

Álgebra de matrizes. Operações com matrizes e vetores. Determinante de uma Matriz Quadrada. Matriz Inversa. Equações Lineares Simultâneas. Análise de Variância Multivariada. Modelo Linear Geral Multivariado. Análise da Covariância Multivariada. Classificação por Função Linear Discriminante e Grupos de Funções Lineares Discriminantes. Influências pela Matriz de Covariância. Testes de Hipóteses por uma Matriz de Covariância. Testes de Independência de Grupos de Variáveis. Correlação Canônica. Componentes Principais. Análise Fatorial. Análise de Grupamento.

Bibliografia

1. Anderson, T.W. An Introduction to Multivariate Statistical Analysis. J.Wiley, NY, 1984.
2.Chatfield, C. and Collins, A. J. Introduction to Multivariate Analysis. Chapman & Hall, London, 1992.
3. Johnson, R. A. and Wichern, D. W. Applied Multivariate Statistical Analysis. Prentice Hall, Englewood Cliffs, 1988.
4. Mardia, K. M.; Kent, J. T. and Bibby, J. M. Multivariate Analysis. Academic Press, London, 1979.
5. Morrison, D. F. Multivariate Statistical Methods. McGraw-Hill, Tokyo, 1976.
6. Bown, Sing-Tze. Pattern Recognition and Image Preprocessing. Marcel Dekker inc., 1972.
7. Schalkoff, R. J. Pattern Recognition: Statistical, Structural and Neural Approaches. John Wiley & Sons, inc., 1992.
9. Duda, R. & Hart, P. E. Pattern Classification and Scenes Analysis. John Wiley & Sons inc., 1991.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7009	2021	ANÁLISE NUMÉRICA	B	100	Aprovado	3 (45 horas)	3° Trimestre

Ementa

Normas, propagação de erros, perturbações, critérios de parada, Taylor
Zeros de funções: Bissecção, Newton, Quasi-Newton
Métodos diretos para Sistemas Lineares: eliminação de Gauss, LU, Cholesky, Gradientes conjugados
Métodos iterativos para Sistemas Lineares: Jacobi, Gauss Seidel, SOR
Interpolação polinomial: Lagrange, Newton, Hermite, splines
Integração: Trapézio, Simpson, Newton-Cotes, Gauss

Bibliografia

G. W. Stewart. Afternotes on Numerical Analysis. 1a edição. SIAM, 1996.

Watkins. Fundamentals of Matrix Computations. 3a edição. Wiley, 2010.

R. Burden. Análise Numérica. Cengage Learning. 3a edição. 2016.

G. H. Golub, C. F. van Loan. Matrix Computations. 4a edição. Johns Hopkins University Press, 2013.

B. N. Datta. Numerical Linear Algebra and Applications. 2a edição. SIAM, 2010.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7032	2021	ESTUDO DIRIGIDO EM ESTATÍSTICA I	A	100	Aprovado	3 (45 horas)	2° Trimestre

Ementa

Modelos lineares generalizados.
Quasi-verossimilhança e funções de estimação.
Modelos condicionais e marginais.
Modelos de regressão Tweedie e extensões.
Modelos de regressão Poisson-Tweedie e extensões.
Modelos de regressão quasi-beta e extensões.
Modelo de regressão linear multivariado.
Modelo multivariado de covariância linear generalizada.
Implementação computacional.
Modelos de regressão multivariados para dados de familia e gêmeos.

Bibliografia

A ser definida pelo professor.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7126	2021	MÉTODOS COMPUTACIONAIS EM ESTATÍSTICA E OTIMIZAÇÃO	A	100	Aprovado	3 (45 horas)	1° Trimestre

Ementa

Introdução ao C++, ambientes de desenvolvimento de programação, operações básicas, ponteiros e memória, funções, filas e vetores, pilhas, ordenação.
Introdução à linguagem de computação estatística R. Aritmética com objetos , Rde classe vetor, matrizes, listas e tabelas, estruturas de controle e repetição, funções, distribuições de probabilidade, gráficos de funções paramétricas, importação de dados, análise exploratória, tópicos em programação alta eficiência, tópicos em otimização.

Bibliografia

Deitel, H. M., & Deitel, P. J. (1992). C++: how to program. Prentice-Hall, Inc..

Grolemund, G. (2014). Hands-on programming with R. Sebastapol, California: O'Reilly Media,Safari Books Online.

Matloff, N. (2011). The art of R programming : tour of statistical software design. San Francisco: No Starch Press.

Morin, P. Estruturas de Dados Abertas (em C++).

Gillespie, C. & Lovelace, R. (2016). Efficient R programming : a practical guide to smarter programming. Sebastopol, CA: O'Reilly Media.

Snaith, P. (1999). C++ para Leigos Passo a Passo. Rio de Janeiro: Editora Ciência Moderna Ltda.

Stroustrup, B. (2014). Programming: principles and practice using C++. Pearson Education.

Código	Ano	Disciplina	Conceito	Freq. (%)	Situação	Créditos	Período
MNUM7078	2021	PROGRAMAÇÃO LINEAR	B	100	Aprovado	3 (45 horas)	1° Trimestre

Ementa

Formulação de Problemas de Programação Linear. O Método Simplex. Método Simplex Revisado. O Método Dual Simplex. O Método Primal-Dual. Análise de Sensibilidade. Degenerescência em Programação Linear. Programas Lineares com Variáveis Limitadas.

Bibliografia

1. Murty, Katta G. Linear Programming. New York, John Wiley & Sons, 1983.
2. Lasdon, L.S. Optimization Theory for Large Systems. London, The Macmillan Company, 1972.
3. Simonnard, M.; Jewell, W.S. Linear Programming. Englewood Cliffs, 1974.
4. Bradley, S.P.; Hax, A.C.; Magnanti, T.L. Applied Mathematical Programming. Menlo Park, California, Addison-Wesley, 1977.
5. Ziotns, S. Linear and Integer Programming. New Jersey. Prentice-Hall, 1974.
6. Wagner, H.M. Principles of Operations Research. Englewood Cliffs, N.J., Prentice-Hall, 1975.

Revistas:
Pesquisa Operacional
Investigación Operativa
Operations Research
Optimization Methods and Software
Management Sciences
Mathematical Programming
Interfaces
Información Tecnologica
European Journal of Operational Research

Conceitos: 9,0 a 10,0 = A; 8,0 a 8,9 = B; 7,0 a 7,9 = C; Zero a 6,9 = D = Reprovado.

Curitiba, 04 de Julho de 2025.

ELEN MIKA TAKATSUKI
Secretaria do Programa de Pós Graduação em MÉTODOS NUMÉRICOS EM ENGENHARIA

Knowledge

Ethics

FEDERATIVE REPUBLIC OF BRAZIL
ORDER AND PROGRESS

POSITIVO UNIVERSITY

Certificate

The President of Positivo University hereby grants this certificate for the completion of the specialization program **MBA in Business Intelligence,** to

56

José Evandeilton Lopes

holder of Identity Card No. 7.745.220/Pernambuco.

Curitiba - Paraná - Brazil
August 2, 2016

Work

Progress

Prof. José Pio Martins
President

José Evandeilton Lopes
Specialist

POSITIVO UNIVERSITY

Accredited by Ministerial Ordinance No. 171, of January 30, 2008 - Official Gazette of 01/31/2008. Accredited by Ministerial Ordinance No. 1071, of November 1, 2013 - Official Gazette of 11/04/2013, for the provision of undergraduate degree programs via distance learning.

MBA in Business Intelligence, carried out under Resolution No. 01/07 - CNE (National Council of Education) of 06/08/2007.

POSITIVO UNIVERSITY

Program Start Date: 09/01/2014
Program Completion Date: 08/02/2016
Field of Knowledge: Information Technology
Final Paper: Time series as decision-making tools in BI: a framework for automated forecasting

POSITIVO UNIVERSITY

President's Office
Diploma Registration Department - DRD

Certificate registered under No. 7836, Certificate Registration Book for Specialization Programs No. 10, Page 342, Process No. 24433.

Curitiba, September 2, 2016

Zeila Ferreira Cortese
Head of the DRD

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 4, 2025.

Saber

Ética

UNIVERSIDADE POSITIVO

Certificado

O Reitor da Universidade Positivo confere o presente certificado, por conclusão do curso de Especialização em **MBA em Business Intelligence**, a

José Evandeilton Lopes

portador da Carteira de Identidade nº 7.745.220/PE.

Curitiba - Paraná - Brasil
02 de agosto de 2016

Prof. José Pio Martins
Reitor

José Evandeilton Lopes
José Evandeilton Lopes
Especialista

Trabalho

Progresso

59

UNIVERSIDADE POSITIVO

Credenciada pela Portaria Ministerial nº 171, de 30 de janeiro de 2008 - D.O.U. de 31/01/2008. Credenciada pela Portaria Ministerial nº 1.071, de 1º de novembro de 2013 - D.O.U. de 04/11/2013, para a oferta de cursos superiores de graduação na modalidade a distância.

Curso de MBA em Business Intelligence, realizado nos termos da Resolução nº 01/07 - CNE de 08/06/2007.

UNIVERSIDADE POSITIVO

Início do Curso: 01/09/2014
Término do Curso: 02/08/2016
Área do Conhecimento: Tecnologia da Informação
Trabalho de Conclusão de Curso: Séries temporais como ferramentas de tomada de decisão em BI um framework para forecast automatizado

UNIVERSIDADE POSITIVO
Reitoria
Departamento de Registro de Diplomas - DRD

Certificado registrado sob o nº 7836, Livro de Registro de Certificados de Cursos de Especialização nº 10, Folha 342, Processo 24433.

Curitiba, 02 de setembro de 2016

Zeila Ferreira Cortese
Chefe do DRD

POSITIVO UNIVERSITY
Accredited by Ministerial Ordinance No. 171, of January 30, 2008
Federal Official Gazette of 01/31/2008

Academic Transcript

Name	Enrollment
JOSÉ EVANDEILTON LOPES	1446510

Identity ID	Issuing Body
7.745.220	II/PE

Specialization Program	Level	Curriculum
MBA IN BUSINESS INTELLIGENCE (PGD0001)	LATO SENSU	14.4

Accredited by Ministerial Ordinance No. 1071, of November 1, 2013 - Official Gazette of 11/04/2013.

Curricular Subjects

Subject	Grade	Hours	Result	Responsible Professor	Academic Degree
DATA ANALYSIS FOR BUSINESS INTELLIGENCE	9,10	40	Approved	EDUARDO TIEPPO	MASTER
BPM – BUSINESS PROCESS MODELING	7,89	40	Approved	EDUARDO TIEPPO	MASTER
BSC & CORPORATE PERFORMANCE MANAGEMENT	8,15	40	Approved	DANIEL FERREIRA DOS SANTOS	MASTER
MANAGERIAL AND FINANCIAL ACCOUNTING	7,10	40	Approved	CLAUDIO MARCELO RODRIGUES CORDEIRO	MASTER
MANAGERIAL DEVELOPMENT FOR BUSINESS INTELLIGENCE	8,55	40	Approved	EDUARDO TIEPPO	MASTER
DIGITAL PROJECT ENTREPRENEURSHIP	7,60	40	Approved	EDUARDO TIEPPO	MASTER
BUSINESS STRATEGY	8,25	40	Approved	JORGE UBERSON PEREIRA	MASTER
BUSINESS INTELLIGENCE PROJECT MANAGEMENT	9,70	40	Approved	JORGE UBERSON PEREIRA	MASTER
RESEARCH SEMINARS	9,60	140	Approved	SORAIA CARISE PRATES	MASTER
DECISION SUPPORT SYSTEMS FOR BUSINESS INTELLIGENCE	8,90	40	Approved	EDUARDO TIEPPO	MASTER
Total Workload Completed		500			

Final Thesis
Time series as decision-making tools in BI: a framework for automated forecasting

Notes

Program Information
Program conducted in accordance with Resolution 01/07 CNE (National Education Council) of 06/08/2007.
Program Start Date: 09/01/2014
Program End Date: 08/02/2016 Field of Study: INFORMATION TECHNOLOGY

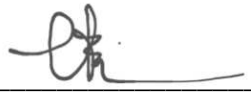
Issued by:

Curitiba, August 4, 2016

-----//Signature//----
Jaqueline Dias Vieira
Enrollment No. 35134
Course Secretary

-----//Signature//----
CRISTIANA LETÍCIA MOREIRA THRUN
GENERAL SECRETARY

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 4, 2025.

UNIVERSIDADE POSITIVO
Credenciada pela Portaria Ministerial nº 171, de 30 de janeiro de 2008
D.O.U. de 31/01/2008

Histórico Escolar

Nome	Matrícula
JOSÉ EVANDEILTON LOPES	1446510

Documento de Identidade	Órgão Expedidor
7.745.220	II/ PE

Curso de Especialização	Nível	Currículo
MBA EM BUSINESS INTELLIGENCE (PGD0001)	LATO SENSU	14.4

Credenciada pela Portaria Ministerial nº 1071, de 1º de novembro de 2013 - D.O.U. de 04/11/2013.

Disciplinas Curriculares

Disciplina	Nota	Horas	Resultado	Docente Responsável	Titulação
ANÁLISE DE DADOS PARA BUSINESS INTELLIGENCE	9.10	40	Aprovado	EDUARDO TIEPPO	MESTRE
BPM - BUSINESS PROCESS MODELING	7.89	40	Aprovado	EDUARDO TIEPPO	MESTRE
BSC & CORPORATE PERFORMANCE MANAGEMENT	8.15	40	Aprovado	DANIEL FERREIRA DOS SANTOS	MESTRE
CONTABILIDADE GERENCIAL E FINANCEIRA	7.10	40	Aprovado	CLAUDIO MARCELO RODRIGUES CORDEIRO	MESTRE
DESENVOLVIMENTO GERENCIAL PARA BUSINESS INTELLIGENCE	8.55	40	Aprovado	EDUARDO TIEPPO	MESTRE
EMPREENDEDORISMO DE PROJETOS DIGITAIS	7.60	40	Aprovado	EDUARDO TIEPPO	MESTRE
ESTRATÉGIA EMPRESARIAL	8.25	40	Aprovado	JORGE UBERSON PEREIRA	MESTRE
GESTÃO DE PROJETOS DE BUSINESS INTELLIGENCE	9.70	40	Aprovado	JORGE UBERSON PEREIRA	MESTRE
SEMINÁRIOS DE PESQUISA	9.60	140	Aprovado	SORAIA CARISE PRATES	MESTRE
SISTEMAS DE APOIO À DECISÃO PARA BUSINESS INTELLIGENCE	8.90	40	Aprovado	EDUARDO TIEPPO	MESTRE
Total de Carga Horária Cursada		500			

Trabalho de Conclusão
Séries temporais como ferramentas de tomada de decisão em BI um framework para forecast automatizado

Observações

Informações do Curso
Curso realizado nos termos da resolução 01/07 CNE de 08/06/07.

Início do Curso: 01/09/2014
Término do Curso: 02/08/2016 Área de Conhecimento: TECNOLOGIA DA INFORMAÇÃO

Expedido por:

Jaqueline Dias Vieira
Matrícula nº 35134
Secretária de Curso

Curitiba, 04 de agosto de 2016

CRISTIANA LETÍCIA MOREIRA THRUN
SECRETÁRIO(A) GERAL

UNIVERSIDADE POSITIVO

Federative Republic of Brazil

FEDERAL UNIVERSITY OF PARANÁ

Bachelor's Degree Diploma in Statistics

The President of the Federal University of Paraná, in the exercise of his duties and considering the completion of the Bachelor's Degree in Statistics on March 17, 2014, hereby confers the title of Bachelor in Statistics to

José Evandeilton Lopes

Brazilian, born in the State of Pernambuco, on March 22, 1983, holder of Identity Card No. 7.745.220/Pernambuco, and grants him this diploma, so that he may enjoy all legal rights and prerogatives.

Curitiba, March 17, 2014

José Evandeilton Lopes
Graduate

Prof. Dr. Zaki Akel Sobrinho
President

Bachelor's Degree Program in Statistics

Recognized by Ordinance No. 307 of August 2, 2011,
Published in the Official Gazette on August 4, 2011.

MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PARANÁ
Vice President's Office for Undergraduate Studies
DAA - General Records Division

By delegation of authority from the D.A.U., Ordinance No. 71, of 10/21/1977, Ordinance of SESU No. 30, of 05/23/1979, and pursuant to Ministerial Ordinance No. 726, of 10/21/1977.
Diploma registered under No. **96051**,
Book: **UF-203**, Page: **163**, Process: **025537/2014-18**.
**D.A.U: Department of University Affairs*

Curitiba, March 2, 2015.

João Nilton Fagundes de Oliveira
Director of the General Records Division

By delegation of authority in accordance with Article 6 of Decree No. 83.937/79 and pursuant to Ordinance No. 1646, of 08/01/2005, issued by the President of UFPR.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 5, 2025.

República Federativa do Brasil

UNIVERSIDADE FEDERAL DO PARANÁ

Diploma de Bacharel em Estatística

O Reitor da Universidade Federal do Paraná, no uso de suas atribuições e tendo em vista a conclusão do Curso de Bacharelado em Estatística, em 17 de março de 2014, confere o título de Bacharel em Estatística a

José Evandeilton Lopes

brasileiro, natural do Estado de Pernambuco, nascido a 22 de março de 1983, portador do RG n.º 7.745.220/ PE,

e outorga-lhe o presente diploma, a fim de que possa gozar de todos os direitos e prerrogativas legais.

Curitiba, 17 de março de 2014.

José Evandeilton Lopes
Diplomado

Prof. Dr. Zaki Akel Sobrinho
Reitor

67

Curso de Bacharelado em Estatística

Reconhecimento Portaria nº 307 de 02 de agosto de 2011, Publicado no D.O.U. de 04 de agosto de 2011.

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PARANÁ
Pró-Reitoria de Graduação
DAA – Divisão de Registro Geral

Por delegação de competência do D.A.U., Portaria n.º 71, de 21/10/77, Portaria da SESU n.º 30, de 23/05/79, e nos termos da Portaria Ministerial n.º 726, de 21/10/77.
Diploma registrado sob n.º **96051**, no
Livro: **UF-203,** Fls.: **163**, Processo: **025537/2014-18**

Curitiba, 02 de março de 2015.

João Nilton Fagundes de Oliveira
Diretor da Divisão de Registro Geral

Por delegação de competência de acordo com o art. 6º do Decreto n.º 83.937/79 e nos termos da Portaria n.º 1646, de 01/08/2005 do Reitor da UFPR.

MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PARANÁ

ACADEMIC TRANSCRIPT

IDENTIFICATION

Student Name: JOSE EVANDEILTON LOPES

Enrollment Code: GRR20096740
Place of Birth: BUIQUE
State: Pernambuco
Nationality: Brazilian
Date of Birth: 03/22/1983

DOCUMENTS

Document Type	Document Number	Issuing Body	
Individual Taxpayer Registry	045.131.684-39		
Identity Card	7745220	SSP	PE
INEP Code	400002320282		

ADMISSION METHOD

Admission Type: Entrance Exam
Admission Term: 1st 2nd Semester of 2009

UNDERGRADUATE DEGREE

Bachelor's Degree in Statistics

Decree 82874/78 - Published in the Official Gazette on 12/19/1978 - Recognition Renewal by Ordinance 307/2011 - Official Gazette 08/04/2011

Course Completion Date: 12/16/2013
Graduation Date: 03/17/2014

NOTES

Student Status: **Graduation**

CURITIBA, February 09, 2023

Authentication: 409C.611C.CAA0.4A5A.A295.5452.333C.C79B
Consult at: portaldoaluno.ufpr.br/usuario/publico/autenticacao/form.action
Validity: 01/29/2025

Program: 16A - Statistics Program - Evening Classes **Version:** 2006

Enrollment Code: GRR20096740

Student Name: JOSE EVANDEILTON LOPES

S.D. Code	Subject/Activity Name	Credit Hours	Grade	Attendance	Status	Local
Term:	**2nd Semester of 2009**					
A CM005	LINEAR ALGEBRA	60	74.00	96.67	Approved	
A CE066	Applications of Statistics	60	54.00	96.67	Approved	
A CE068	Probability Calculus A	60	60.00	93.33	Approved	
A CM041	Calculus I	90	89.00	100.00	Approved	
A CE065	Basic Elements for Statistics	90	93.00	100.00	Exempt with Grade	
A CE067	Descriptive and Exploratory Statistics	90	71.00	100.00	Exempt with Grade	
A CI208	Computer Programming	60	11.00	80.00	Failed	
	Term Credit Hours:	450		**Academic Performance Index:** 0,6806		
Term:	**1st Semester of 2010**					
A CE069	Probability Calculus B	60	50.00	91.67	Approved	
A CM042	Calculus II	90	51.00	95.56	Approved	
A EC223	COMPUTATIONAL STATISTICS	60	40.00	80.00	Failed	
A CE209	STATISTICAL INFERENCE I	60	78.00	93.33	Approved	
A TP052	Operations Research I	60	30.00	83.33	Failed	
	Term Credit Hours:	210		**Academic Performance Index:** 0,4991		
Term:	**2nd Semester of 2010**					
A CE219	STATISTICAL QUALITY CONTROL	60	71.00	88.33	Approved	
A CE210	STATISTICAL INFERENCE II	60	82.00	100.00	Approved	
A CI202	Numerical Methods	60	65.00	90.00	Approved	
A CE062	SPECIAL TOPICS IN STATISTICS II	60	50.00	91.67	Approved	
	Term Credit Hours:	240		**Academic Performance Index:** 0,6700		
Term:	**1st Semester of 2011**					
A CE071	Linear Regression Analysis	60	62.00	100.00	Approved	
A CE230	BIOMETRY	60	58.00	91.67	Approved	
A CE050	NONPARAMETRIC STATISTICS	60	54.00	100.00	Approved	
A SA094	Quality Management	30	80.00	80.00	Approved	
A CE213	EXPERIMENTAL DESIGN I	60	50.00	100.00	Approved	
A CE070	Sampling Techniques	60	73.00	91.67	Approved	
	Term Workload:	330		**Academic Performance Index:** 0,6127		
Term:	**2nd Semester of 2011**					
A CE017	TIME SERIES ANALYSIS	60	75.00	98.33	Approved	
A CE073	Categorical Data Analysis	60	50.00	90.00	Approved	
A CE074	Industrial Process Control	60	5.00	50.00	Failed due to Attendance	
A CE225	GENERALIZED LINEAR MODELS	60	86.00	100.00	Approved	
A CE222	APPLIED STOCHASTIC PROCESSES	60	90.00	95.00	Approved	
	Term Credit Hours:	240		**Academic Performance Index:** 0,6120		
Term:	**1st Semester of 2012**					
A CE075	Longitudinal Data Analysis	60	89.00	96.67	Approved	
A CE077	Survival Analysis	60	89.00	96.67	Approved	
A CE076	Multivariate Analysis	60	51.00	93.33	Approved	
A EC223	COMPUTATIONAL STATISTICS	60	71.00	100.00	Exempt with Grade	
CE083	COMPUTATIONAL STATISTICS I	60	71.00	93.33	Approved	

A = Active I = Inactive

Authentication: 58FE.C1BD.4F66.78CB.66D5.CB7A.D186.75D0
Consult at: portaldoaluno.ufpr.br/usuario/publico/autenticacao/form.action
Validity: 01/29/2025

Program: 16A - Statistics Program - Evening Classes **Version:** 2006

Enrollment Code: GRR20096740

Student Name: JOSE EVANDEILTON LOPES

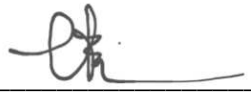
S.D.	Code	Name Subject/Activity	Credit Hours	Grade	Attendance	Status	Local
A	CE072	Risk Theory	60	66.00	91.67	Approved	
A	CE063	SPECIAL TOPICS IN STATISTICS III	60	100.00	96.67	Approved	
		Term Credit Hours:	420		**Academic Performance Index:** 0,7671		
Term:		**2nd Semester of 2012**					
A	CE074	Industrial Process Control	60	60.00	96.67	Approved	
A	TP052	Operations Research I	60	40.00	100.00	Failed	
A	CE220	RESEARCH TECHNIQUES	90	85.00	100.00	Approved	
		Term Credit Hours:	150		**Academic Performance Index:** 0,6500		
Term:		**1st Semester of 2013**					
A	TP052	Operations Research I	60	69.00	100.00	Approved	
A	CI208	Computer Programming	60	70.00	93.33	Approved	
		Term Credit Hours:	120		**Academic Performance Index:** 0,6950		
Term:		**2nd Semester of 2013**					
A	AAC016	Complementary Formative Activities	100		100.00	Exempt without Grade	
A	CE078	Statistics Laboratory	300	100.00	100.00	Approved	
		Term Credit Hours:	300		**Academic Performance Index:** 1,0000		
		Total Credit Hours:	2460		**Overall Academic Performance Index:** 0,6886		

Exemption Location

A = Active I = Inactive

Authentication: 58FE.C1BD.4F66.78CB.66D5.CB7A.D186.75D0
Consult at: portaldoaluno.ufpr.br/usuario/publico/autenticacao/form.action
Validity: 01/29/2025

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 5, 2025.

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PARANÁ

HISTÓRICO ESCOLAR

IDENTIFICAÇÃO

Nome Aluno: JOSE EVANDEILTON LOPES

Matrícula : GRR20096740
Naturalidade : BUIQUE **UF:** PE
Nacionalidade : Brasileira **Nascimento:** 22/03/1983

DOCUMENTOS

Tipo Documento	Número Documento	Órgão Emissor	
Cadastro de Pessoas Físicas	045.131.684-39		
Carteira de Identidade	7745220	SSP	PE
Código INEP	400002320282		

FORMA DE INGRESSO

Forma de Ingresso: Vestibular **Período:** 1o. Semestre de 2009

CURSO SUPERIOR

Bacharel em Estatística

Decreto 82874/78 - Publicado no D.O.U. 19/12/1978 - Renovação de Reconhecimento Portaria 307/2011 - DOU 04/08/2011

Data de Conclusão do Curso: 16/12/2013 **Data da Colação de Grau:** 17/03/2014

OBSERVAÇÕES

Situação do Aluno **Formatura**

CURITIBA, 09 de Fevereiro de 2023

Autenticação: 409C.611C.CAA0.4A5A.A295.5452.333C.C79B
Consultar em: portaldoaluno.ufpr.br/usuario/publico/autenticacao/form.action
Validade: 29/01/2025

UNIVERSIDADE FEDERAL DO PARANÁ

Data: 09/02/2023
Hora: 16:22

11.02.05.99.37 Histórico Escolar (IRA por Aluno) (Principal)

Curso: 16A - Curso de Estatística - Noturno **Versão:** 2006

Matrícula: GRR20096740

Nome Aluno: JOSE EVANDEILTON LOPES

S.D.	Código	Nome Disciplina/Atividade	C.H.	Média	Freq.	Situação	Local
Período:		**2o. Semestre de 2009**					
A	CM005	ÁLGEBRA LINEAR	60	74,00	96,67	Aprovado	
A	CE066	Aplicações de Estatística	60	54,00	96,67	Aprovado	
A	CE068	Cálculo de Probabilidades A	60	60,00	93,33	Aprovado	
A	CM041	Cálculo I	90	89,00	100,00	Aprovado	
A	CE065	Elementos Básicos para Estatística	90	93,00	100,00	Disp. c/nt	
A	CE067	Estatística Descritiva e Exploratória	90	71,00	100,00	Disp. c/nt	
A	CI208	Programação de Computadores	60	11,00	80,00	Reprovado	
		Carga Horária no Período:	450		**Índice de Rendimento Acad.:**	0,6806	
Período:		**1o. Semestre de 2010**					
A	CE069	Cálculo de Probabilidades B	60	50,00	91,67	Aprovado	
A	CM042	Cálculo II	90	51,00	95,56	Aprovado	
A	CE223	ESTATISTICA COMPUTACIONAL	60	40,00	80,00	Reprovado	
A	CE209	INFERENCIA ESTATISTICA I	60	78,00	93,33	Aprovado	
A	TP052	Pesquisa Operacional I	60	30,00	83,33	Reprovado	
		Carga Horária no Período:	210		**Índice de Rendimento Acad.:**	0,4991	
Período:		**2o. Semestre de 2010**					
A	CE219	CONTROLE ESTATISTICO DE QUALIDADE	60	71,00	88,33	Aprovado	
A	CE210	INFERENCIA ESTATISTICA II	60	82,00	100,00	Aprovado	
A	CI202	Métodos Numéricos	60	65,00	90,00	Aprovado	
A	CE062	TOPICOS ESPECIAIS DE ESTATISTICA II	60	50,00	91,67	Aprovado	
		Carga Horária no Período:	240		**Índice de Rendimento Acad.:**	0,6700	
Período:		**1o. Semestre de 2011**					
A	CE071	Análise de Regressão Linear	60	62,00	100,00	Aprovado	
A	CE230	BIOMETRIA	60	58,00	91,67	Aprovado	
A	CE050	ESTATISTICA NAO PARAMETRICA	60	54,00	100,00	Aprovado	
A	SA094	Gestão da Qualidade	30	80,00	80,00	Aprovado	
A	CE213	PLANEJAMENTO DE EXPERIMENTOS I	60	50,00	100,00	Aprovado	
A	CE070	Técnicas de Amostragem	60	73,00	91,67	Aprovado	
		Carga Horária no Período:	330		**Índice de Rendimento Acad.:**	0,6127	
Período:		**2o. Semestre de 2011**					
A	CE017	ANALISE DAS SERIES TEMPORAIS	60	75,00	98,33	Aprovado	
A	CE073	Análise de Dados Categóricos	60	50,00	90,00	Aprovado	
A	CE074	Controle de Processos Industriais	60	5,00	50,00	Repr. Freq	
A	CE225	MODELOS LINEARES GENERALIZADOS	60	86,00	100,00	Aprovado	
A	CE222	PROCESSOS ESTOCASTICOS APLICADOS	60	90,00	95,00	Aprovado	
		Carga Horária no Período:	240		**Índice de Rendimento Acad.:**	0,6120	
Período:		**1o. Semestre de 2012**					
A	CE075	Análise de Dados Longitudinais	60	89,00	96,67	Aprovado	
A	CE077	Análise de Sobrevivência	60	89,00	96,67	Aprovado	
A	CE076	Análise Multivariada	60	51,00	93,33	Aprovado	
A	CE223	ESTATISTICA COMPUTACIONAL	60	71,00	100,00	Disp. c/nt	
	CE083	ESTATÍSTICA COMPUTACIONAL I	60	71,00	93,33	Aprovado	

A = Ativa I = Inativa

Autenticação: 58FE.C1BD.4F66.78CB.66D5.CB7A.D186.75D0
Consultar em: portaldoaluno.ufpr.br/usuario/publico/autenticacao/form.action
Validade: 29/01/2025

Curso: 16A - Curso de Estatística - Noturno **Versão:** 2006

Matrícula: GRR20096740

Nome Aluno: JOSE EVANDEILTON LOPES

S.D.	Código	Nome Disciplina/Atividade	C.H.	Média	Freq.	Situação	Local
A	CE072	Teoria do Risco	60	66,00	91,67	Aprovado	
A	CE063	TOPICOS ESPECIAIS DE ESTATISTICA III	60	100,00	96,67	Aprovado	
		Carga Horária no Período:	420		**Índice de Rendimento Acad.:**	0,7671	
Período:		**2o. Semestre de 2012**					
A	CE074	Controle de Processos Industriais	60	60,00	96,67	Aprovado	
A	TP052	Pesquisa Operacional I	60	40,00	100,00	Reprovado	
A	CE220	TECNICAS DE PESQUISA	90	85,00	100,00	Aprovado	
		Carga Horária no Período:	150		**Índice de Rendimento Acad.:**	0,6500	
Período:		**1o. Semestre de 2013**					
A	TP052	Pesquisa Operacional I	60	69,00	100,00	Aprovado	
A	CI208	Programação de Computadores	60	70,00	93,33	Aprovado	
		Carga Horária no Período:	120		**Índice de Rendimento Acad.:**	0,6950	
Período:		**2o. Semestre de 2013**					
A	AAC016	Atividades Formativas Complementares	100		100,00	Disp. s/nt	
A	CE078	Laboratório de Estatística	300	100,00	100,00	Aprovado	
		Carga Horária no Período:	300		**Índice de Rendimento Acad.:**	1,0000	
		Total Carga Horária:	2460		**Índice de Rend. Acad. Geral:**	0,6886	

Local Dispensa

A = Ativa I = Inativa

Autenticação: 58FE.C1BD.4F66.78CB.66D5.CB7A.D186.75D0
Consultar em: portaldoaluno.ufpr.br/usuario/publico/autenticacao/form.action
Validade: 29/01/2025

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*
***CIES**: Comparative and International Education Society*
***NAFSA**: Association of International Educators*
***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date : January 12, 2026	**Candidate's Name:** José Evandeilton Lopes
Country: Brazil	**Purpose:** Immigration

Documentation(s) Researched:

- Transcripts and the degree of Bachelor in Statistics *(Titulo de Bacharel em Estatistica)* granted by the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)*
- Transcripts and the Certificate *(Certificado)* for the completion of the Specialization Course of MBA in Business Intelligence, Knowledge Area: Information Technology *(Curso de Especialização em MBA em Business Intelligence, Área de Conhecimento: Tecnologia da Informação)* granted by the Positivo University *(Universidade Positivo-UP)*
- Transcripts and the degree of Master in Numerical Methods in Engineering *(titulo de Mestre em Métodos Numéricos em Engenharia)* granted by the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)*

1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com

© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*
***CIES**: Comparative and International Education Society*
***NAFSA**: Association of International Educators*
***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date : January 12, 2026	**Candidate's Name:** José Evandeilton Lopes
Country: Brazil	**Purpose:** Immigration

U.S. Educational Equivalency:

Based on the documentation(s) submitted for evaluation, World Academic Research Center, Inc. concludes that Mr. Lopes's education in Brazil is considered *equivalent to the U.S. degree of Bachelor of Science in Statistics, Master of Business Administration in Business Intelligence and Master of Science in Computational and Mathematical Engineering* granted by a regionally accredited institution of higher education in the United States of America.

***WARC* Evaluator:**
Mackenzy Schwarz, *Senior Evaluator and Executive Director*

World Academic Research Center, Inc.
Credentials Evaluation Resume and Translation Service
1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com
© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*

***CIES**: Comparative and International Education Society*

***NAFSA**: Association of International Educators*

***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date	: January 12, 2026	**Candidate's Name:**	José Evandeilton Lopes
Country:	Brazil	**Purpose:**	Immigration

Mr. Lopes pursued undergraduate study from 2009/2 to 2013/2 at the Federal University of Paraná *(Universidade Federal do Paraná-UFPR),* a recognized (accredited) institution of higher education in Brazil. On December 19, 1912, Victor Ferreira do Amaral e Silva led the process of the effective creation of the University of Paraná, becoming its first rector. In 1913 the University began to function, offering courses of Legal and Social Sciences, Engineering, Medicine and Surgery, Commerce, Dentistry, Pharmacy and Obstetrics. After a period of difficulties, with the mobilization of state leaders in 1950, the federalization took place and the University of Paraná became a public and free institution. The construction of the Hospital de Clínicas in 1953, the Rectory Complex in 1958 and the Polytechnic Center in 1961 proves the consolidation of the Institution. Due to the efforts of professors, students, managers and technicians, who passed through the University throughout this time, UFPR is today, a symbol of the state capital, pride of Paraná, which in turn, is also proud to have the first public university in Brazil. The respect for diversity and pluralism of ideas, the constitutional principle of inseparability between teaching, research and extension, the universality of knowledge and the promotion of interdisciplinarity, are present in the corridors and rooms of the university. In addition to the campuses in Curitiba, UFPR is present in the interior and on the coast of the state, playing an active role in the socio-economic development and quality of life of the people of Paraná, through access to higher education and the activities carried out by the academic community in favor of society in Paraná and Brazil. The admission into the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)* requires completion of secondary education in Brazil or similar, equivalent to the U.S. high school diploma.

Mr. Lopes completed the undergraduate course for the degree of Bachelor in Statistics *(Curso de Bacharelado em Estatistica)* in the 2nd semester of 2013 and was granted the degree of Bachelor in Statistics *(Titulo de Bacharel em Estatistica)* by the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)* on March 17, 2014. This is ***equivalent to the U.S. degree of Bachelor of Science in Statistics*** granted by a regionally accredited institution of higher education in the United States of America.

1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com

© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*

***CIES**: Comparative and International Education Society*

***NAFSA**: Association of International Educators*

***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date	: January 12, 2026	**Candidate's Name:**	José Evandeilton Lopes
Country:	Brazil	**Purpose:**	Immigration

Mr. Lopes pursued graduate study from September 1, 2014 to August 2, 2016 at the Positivo University *(Universidade Positivo-UP)*, a recognized (accredited) institution of higher education in Brazil. In 1988, the Positivo University *(Universidade Positivo-UP)* was created as Positivo Faculties *(Faculdades Positivo)* and offered five Undergraduate courses, two Specialization courses – Post-Graduation Lato Sensu – and an Interinstitutional Master's Degree in the area of Administration, in partnership with the Federal University of Rio Grande do South. In 1998, the Positivo Faculties were transformed into the Positivo University Center *(Centro Universitário Positivo-UNICEP)*, offering 18 Undergraduate courses. The campus was transferred in 2000 to a specially designed and built area in the Campo Comprido neighborhood, in Curitiba, providing students with comfort and convenience, as well as incentives for professional and/or charitable activities aimed at communities in the region. In 2008, the transformation of the Positivo University Center- UNICEP into a university was authorized by the Ministry of Education. The Positivo University became in 2019 the 12th higher education institution to join the Cruzeiro do Sul Educacional group, which, with on-site teaching, already operates in the states of São Paulo, Rio Grande do Sul, Paraíba and the Federal District, in addition to be present throughout the country and in Japan through Distance Education. Today, UP continues to stand out in national and international rankings, which evaluate criteria such as teaching, research, extension and innovation. In addition, the University is ranked among the best Private Universities in Brazil in the MEC evaluations.

Mr. Lopes completed the postgraduate Specialization Course of MBA in Business Intelligence, Knowledge Area: Information Technology *(Curso de Especialização em MBA em Business Intelligence, Área de Conhecimento: Tecnologia da Informação)* in 2016 and was granted the corresponding Certificate *(Certificado)* by the Positivo University *(Universidade Positivo-UP)* on August 2, 2016. This is ***equivalent to the U.S. degree of Master of Business Administration in Business Intelligence*** granted by a regionally accredited institution of higher education in the United States of America.

1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com

© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*

***CIES**: Comparative and International Education Society*

***NAFSA**: Association of International Educators*

***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date	: January 12, 2026	**Candidate's Name:**	José Evandeilton Lopes
Country:	Brazil	**Purpose:**	Immigration

Mr. Lopes pursued further graduate study from March 30, 2021 to August 30, 2023 at the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)*, a recognized (accredited) institution of higher education in Brazil. The Graduate Program in Numerical Methods in Engineering - PPGMNE UFPR was founded in 1994 in such an innovative and visionary way that, after 2020, its main themes and lines of research are gaining ground in all fields of research and the productive sector. PPGMNE UFPR has been studying, publishing, and serving as a reference throughout its existence. Thus, always innovative and ahead of its time, the PPGMNE is a program that works to unite academic and organizational needs. The Program is focused on training researchers and professionals in areas such as computational mechanics, mathematical programming, optimization, bioengineering, and data science, offering a solid foundation for working in academia and industry, with an annual selection process for master's programs and a quarterly selection process for doctoral programs. The role of the Postgraduate Program in Numerical Methods - PPGMNE is particularly relevant in the current context. With the technological evolution of recent decades, which has greatly increased the ease of data storage and computational processing power at ever-decreasing costs, research and training in numerical methods are even more relevant, for the social integration in the academic world and different industries to occur and facilitate knowledge transfer, the foundation lies in solid training and the profile of the graduate.

Mr. Lopes completed the postgraduate Course for the Degree of Master in Numerical Methods in Engineering, Concentration Area: Mathematical Programming *(Curso de Mestrado em Métodos Numéricos em Engenharia, Área de Concentração: Programação Matemática)* in 2023 and was granted the degree of Master in Numerical Methods in Engineering *(titulo de Mestre em Métodos Numéricos em Engenharia)* by the Federal University of Paraná *(Universidade Federal do Paraná-UFPR)* on August 30, 2023. This is ***equivalent to the U.S. degree of Master of Science in Computational and Mathematical Engineering*** granted by a regionally accredited institution of higher education in the United States of America.

1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com

© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*
***CIES**: Comparative and International Education Society*
***NAFSA**: Association of International Educators*
***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date : January 12, 2026	**Candidate's Name:** José Evandeilton Lopes
Country: Brazil	**Purpose:** Immigration

AACRAO EDGE (Electronic Database for Global Education) online database, Version 1.0 by American Association of Collegiate Registrars and Admissions Officers (AACRAO).

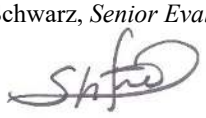
World Higher Education Database 2024/2025. CD-ROM. New York, New York: Palgrave Macmillan Ltd. *2025.*

College Credit Recommendation Service. 2025 National Guide to Educational Credit for Training Programs. Washington D.C.: American Council on Education, *2025.*

A Guide to Educational Systems Around the World. Washington DC: NAFSA: National Association of International Educators.

Remark(s): This evaluation is provided on an advisory basis and is not binding on any agency or institution. Additionally, the admitting institution makes the final decision according to its existing institutional policies and functions. WARC evaluations rely on the provided documents, the latest information on international education (including the AACRAO EDGE database), and the evaluator's extensive experience (see attached resume). While WARC cannot guarantee the authenticity of the documents, it has no reason to doubt their legitimacy.

***WARC* Evaluator:**
Mackenzy Schwarz, *Senior Evaluation and Executive Director*



World Academic Research Center, Inc.
Credentials Evaluation Resume and Translation Service
1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com
© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*
***CIES**: Comparative and International Education Society*
***NAFSA**: Association of International Educators*
***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date : January 12, 2026	**Candidate's Name:** José Evandeilton Lopes
Country: Brazil	**Purpose:** Immigration

CORPORATE PROFILE

Founded in 1999 and incorporated in 2004, ***World Academic Research Center, Inc.*** *(WARC)* is a private organization located in Boca Raton, Florida which evaluates and translates foreign educational credentials and issues a detailed report of equivalency in terms of the educational system in the United States. All of our consultants have significant years of experience and extensive knowledge in the international education field. Our multilingual staff has significant exposure to both the U.S. and world educational systems via professional Immigration, teaching posts and academic study. *WARC* consultants have authored articles, contributed to publications, presented seminars in the international education field and attended professional conferences. *WARC* follows the highest standards of educational evaluation guidelines as recommended by U.S. admissions offices and various publications by the American Association of Collegiate Registrars and Admission Officers (AACRAO), the Association of International Educators (NAFSA) and ministries of education throughout the world.

Executive Director

Mackenzy Schwarz – Bachelor of Arts in International Studies and French
University of Miami, Coral Gables, Florida (1993-1995)

Ms. Mackenzy Schwarz has been working in the international education and professional work experience evaluation field **since 1995**. She studied International Studies at the University of Miami in Coral Gables, Florida. Ms. Schwarz has ***thirty-one years of experience*** in the foreign credential evaluation field. She was Manager of the Evaluations Division for a foreign credential evaluation service firm in South Florida for over five years and served as Associate Foreign Credential Evaluator and Francophone Expert at a credential evaluation company in Miami, Florida for over five years. Ms. Mackenzy Schwarz is an active member of the Association for International Credential Evaluation Professionals *(TAICEP)* and the Association of International Educators *(NAFSA)*.

1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com

© Copyright 2026 - WARC, Inc. - All Rights Reserved

SINCE 1999

World Academic Research Center, Inc.

Foreign Credentials Evaluation and Translation Services

Memberships:

***AEA**: American Evaluation Association*
***CIES**: Comparative and International Education Society*
***NAFSA**: Association of International Educators*
***TAICEP**: The Association for International Credential Evaluation Professionals*

Academic Credential Evaluation Report

Document by Document

Date : January 12, 2026	**Candidate's Name:** José Evandeilton Lopes
Country: Brazil	**Purpose:** Immigration

Foreign credential evaluation reports (including transfer credit assessment) for foreign educated individuals from around the world prepared by Ms. Schwarz have been accepted by various colleges, universities, private entities, licensing boards, United States Citizenship and Immigration Services since 192.00. Ms. Schwarz has evaluated foreign educational documents for the purposes of immigration, applications for various professional licensing boards in the United States (CPA examination, architecture, dentistry, engineering, law, medical laboratory technology, Production Engineering, and teacher certification), applications for admission to U.S. high schools, colleges and universities and applications for Immigration. Ms. Schwarz presented a professional seminar for U.S. university admissions officers on the educational systems of France and Haiti and conducted in-service training sessions on the educational systems of France, Morocco, South Korea and Haiti. Ms. Schwarz trained new evaluators and student assistants in the foreign educational evaluation process and contributed as the Francophone Expert on the publication entitled: *JS&A Guide to Admission of International Freshman Applicants*. Ms. Schwarz was also a contributor on the education of France and Haiti for the handbook entitled: *A Guide to Educational Systems Around the World*, published by NAFSA in 1999. In addition, she has attended numerous professional local and national conferences in the international education field.

1825 NW Corporate Blvd., Suite 110
Boca Raton, FL 33431
Tel: (561) 807-6330 ~ Fax: (561) 807-6331
E-mail: evaluations@foreigndegrees.com
Web: http:// www.foreigndegrees.com

© Copyright 2026 - WARC, Inc. - All Rights Reserved

Exhibit B - Eligibility Criteria: Professional Evidence

Attn: Immigration Officer,

It is with great satisfaction that I write this letter to attest to the professional performance of **José Evandeilton Lopes** at **Stix Fidelidade & Inteligência S/A**, where he holds the position of **Data Science Consultant** under the direct supervision of **Denis Araujo dos Santos**, **Head of CRM and Advanced Analytics**. José has been part of the team since **February 5, 2024**, and is employed under the CLT (Consolidation of Labor Laws) regime, dedicating himself fully to his responsibilities at the company.

The operational environment at Stix is particularly demanding due to the breadth and complexity of our loyalty ecosystem, which serves over 13 million customers and interacts with multiple partners across various retail segments. In this challenging context, José plays an indispensable role:

- Data Science Consultant responsible for transforming large volumes of data into strategic insights for Marketing, CRM, and fraud prevention in a complex environment with over 13 million customers.
- Developed and implemented around 10 predictive machine learning models, including classification, regression, and clustering, optimizing campaigns and segmenting customers based on potential economic return.
- Created robust data architectures and automated management reports, enhancing analytical capacity and agility in decision-making.
- Implemented effective anti-fraud solutions and trained AI-powered assistants (OpenAI) for Marketing, CRM, and HR.
- Manages the entire development cycle of statistical and machine learning models, including data collection, cloud implementation (Databricks), and continuous monitoring.
- Combines deep knowledge in statistics and data science with a strategic vision focused on business outcomes.

Considering his excellent performance, significant contributions, and the feedback received from his direct manager to date, I am confident that José is well-equipped to tackle and solve challenges of varying complexity in Data Science and Automation projects using LLMs and Artificial Intelligence.

I remain at your disposal to provide any additional information that may be required.

Sincerely,

DocuSigned by:
Aline Curcino
F0CFB8D7D0ED409...

Aline Curcino
Human Resources Manager | Stix Fidelidade & Inteligência
aline.curcino@soustix.com.br
5511 97506-3934

Certificate of Completion

Envelope Identification: F1273A3E-7B4D-4EEE-BB19-6EBC4AC64243
Status: Completed
Subject: This is your signed document: Stix_Declaração_visto2.docx
Source envelope:
Document pages: 1
Signatures: 1
Certified pages: 5
Initials: 0
Guided Signature: Disabled
Seal with EnvelopeId (Envelope ID): Disabled
Time Zone: (UTC-08:00) Pacific Time (US & Canada)

Envelope sender:
Aline Curcino
Alameda Araguaia, 2104
Avenida Brigadeiro Luiz Antonio, 3227 4th FLOOR
Barueri, São Paulo 06.455-000
aline.curcino@soustix.com.br
IP address: 2804:7f0:96c0:e

Record tracking

Status: Original
08/14/2025 2:33:11 PM
Holder: Aline Curcino
aline.curcino@soustix.com.br
Location: DocuSign

Signer Events	Signature	Time and date record
Aline Curcino aline.curcino@soustix.com.br Human Resources Manager Stix Fidelidade e Inteligência S/A Security Level: Email, Account Authentication (None)	DocuSigned by:  F0CFB8D7D0ED409... Signature Adoption: Pre-selected style Using IP Address: 177.102.149.38	Sent: 08/14/2025 2:33:38 PM Viewed: 08/14/2025 2:33:45 PM Signed: 08/14/2025 2:35:34 PM Free-form Signature

Electronic Signature and Record Terms:
Not offered through DocuSign

In-person signer events	Signature	Time and date record

Sender delivery events	Status	Time and date record

Agent delivery events	Status	Time and date record

Intermediate delivery events	Status	Time and date record

Certified delivery events	Status	Time and date record

Copy events	Status	Time and date record
JOSE EVANDEILTON LOPES jose.lopes@soustix.com.br Security Level: Email, Account Authentication (None)	Copied	Sent: 08/14/2025 2:35:35 PM

Electronic Signature and Record Terms:
Accepted: 04/25/2025 05:25:24 AM
ID: fc0c8a7d-d44c-44f0-859b-a9af18cf5243

Witness events	Signature	Time and date record

Notary events	Signature	Time and date record

Envelope summary events	Status	Timestamp stamp
Envelope sent	With hash/encrypted	08/14/2025 2:33:38 PM
Certified delivery	Security verified	08/14/2025 2:33:45 PM
Signature completed	Security verified	08/14/2025 2:35:34 PM
Completed	Security verified	08/14/2025 2:35:35 PM

Payment events	Status	Timestamp stamp
Electronic Signature and Record Terms		

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, STIX FIDELIDADE E INTELIGENCIA S.A. (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a $0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact STIX FIDELIDADE E INTELIGENCIA S.A.:
You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: valter.viana@soustix.com.br

To advise STIX FIDELIDADE E INTELIGENCIA S.A. of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at valter.viana@soustix.com.br and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from STIX FIDELIDADE E INTELIGENCIA S.A.

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to valter.viana@soustix.com.br and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with STIX FIDELIDADE E INTELIGENCIA S.A.

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to valter.viana@soustix.com.br and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: https://support.docusign.com/guides/signer-guide-signing-system-requirements.

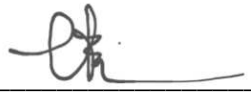
Acknowledging your access and consent to receive and sign documents electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify STIX FIDELIDADE E INTELIGENCIA S.A. as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by STIX FIDELIDADE E INTELIGENCIA S.A. during the course of your relationship with STIX FIDELIDADE E INTELIGENCIA S.A..

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 20, 2025.

A/C: Oficial de Imigração,

É com satisfação que escrevo esta carta para atestar a atuação profissional de **José Evandeilton Lopes** na **Stix Fidelidade & Inteligência S/A**, onde ele desempenha a função de **Consultor de Ciência de Dados** sob supervisão direta de **Denis Araujo dos Santos**, **Head de CRM e Advanced Analytics**. José está no time desde o dia **05 de fevereiro de 2024** e é contratado em regime CLT, dedicando-se integralmente às suas atividades na empresa.

O ambiente operacional da Stix é particularmente exigente devido à amplitude e complexidade do nosso ecossistema de fidelidade, que atende mais de 13 milhões de clientes e interage com múltiplos parceiros em diversos segmentos do varejo. Nesse contexto desafiador, José desempenha um papel indispensável:

- Consultor de Ciência de Dados responsável pela transformação de grandes volumes de dados em insights estratégicos para Marketing, CRM e prevenção a fraudes em ambiente complexo com mais de 13 milhões de clientes.
- Desenvolveu e implementou cerca de 10 modelos preditivos de machine learning, abrangendo classificação, regressão e clusterização, otimizando campanhas e segmentando clientes pelo retorno econômico potencial.
- Criou arquiteturas robustas de dados e automatizou relatórios gerenciais, ampliando capacidade analítica e agilidade na tomada de decisão.
- Implementou soluções antifraude eficazes e treinou assistentes especializados com IA (OpenAI) para Marketing, CRM e RH.
- Gerencia todo o ciclo de desenvolvimento de modelos estatísticos e de machine learning, incluindo coleta de dados, implementação em nuvem (Databricks) e monitoramento contínuo.
- Combina profundo conhecimento em estatística e ciência de dados com visão estratégica voltada aos resultados do negócio.

Considerando seu excelente desempenho, suas relevantes contribuições e os feedbacks recebidos de seu gestor direto até o presente momento, tenho confiança de que José está capacitado para enfrentar e solucionar desafios de complexidades variadas em projetos de Ciência de Dados e Automatizações usando LLMs e Inteligência Artificial.

Permaneço à disposição para fornecer quaisquer informações adicionais necessárias.

Atenciosamente,

DocuSigned by:
Aline Curcino
F0CFB8D7D0ED409...

Aline Curcino
Gerente de Recursos Humanos | Stix Fidelidade & Inteligência
aline.curcino@soustix.com.br
5511 97506-3934

Certificado de Conclusão

Identificação de envelope: F1273A3E-7B4D-4EEE-BB19-6EBC4AC64243
Status: Concluído
Assunto: Este é seu documento assinado: Stix_Declaração_visto2.docx
Envelope fonte:
Documentar páginas: 1
Assinaturas: 1
Certificar páginas: 5
Rubrica: 0
Assinatura guiada: Desativado
Selo com EnvelopeId (ID do envelope): Desativado
Fuso horário: (UTC-08:00) Hora do Pacífico (EUA e Canadá)

Remetente do envelope:
Aline Curcino
Alameda Araguaia,2104
Av. Brigadeiro Luiz Antonio, 3227 ANDAR 4
Barueri, SP 06.455-000
aline.curcino@soustix.com.br
Endereço IP: 2804:7f0:96c0:e

Rastreamento de registros

Status: Original
14/08/2025 14:33:11
Portador: Aline Curcino
aline.curcino@soustix.com.br
Local: DocuSign

Eventos do signatário	Assinatura	Registro de hora e data
Aline Curcino aline.curcino@soustix.com.br Gerente de Recursos Humanos Stix Fidelidade e Inteligência S/A Nível de segurança: E-mail, Autenticação da conta (Nenhuma)	DocuSigned by: Aline Curcino F0CFB8D7D0ED409... Adoção de assinatura: Estilo pré-selecionado Usando endereço IP: 177.102.149.38	Enviado: 14/08/2025 14:33:38 Visualizado: 14/08/2025 14:33:45 Assinado: 14/08/2025 14:35:34 Assinatura de forma livre

Termos de Assinatura e Registro Eletrônico:
Não oferecido através da Docusign

Eventos do signatário presencial	Assinatura	Registro de hora e data

Eventos de entrega do editor	Status	Registro de hora e data

Evento de entrega do agente	Status	Registro de hora e data

Eventos de entrega intermediários	Status	Registro de hora e data

Eventos de entrega certificados	Status	Registro de hora e data

Eventos de cópia	Status	Registro de hora e data
JOSE EVANDEILTON LOPES jose.lopes@soustix.com.br Nível de segurança: E-mail, Autenticação da conta (Nenhuma)	Copiado	Enviado: 14/08/2025 14:35:35

Termos de Assinatura e Registro Eletrônico:
Aceito: 25/04/2025 05:25:24
ID: fc0c8a7d-d44c-44f0-859b-a9af18cf5243

Eventos com testemunhas	Assinatura	Registro de hora e data

Eventos do tabelião	Assinatura	Registro de hora e data

Eventos de resumo do envelope	Status	Carimbo de data/hora
Envelope enviado	Com hash/criptografado	14/08/2025 14:33:38
Entrega certificada	Segurança verificada	14/08/2025 14:33:45
Assinatura concluída	Segurança verificada	14/08/2025 14:35:34
Concluído	Segurança verificada	14/08/2025 14:35:35

Eventos de pagamento	Status	Carimbo de data/hora
Termos de Assinatura e Registro Eletrônico		

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, STIX FIDELIDADE E INTELIGENCIA S.A. (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a $0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact STIX FIDELIDADE E INTELIGENCIA S.A.:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: valter.viana@soustix.com.br

To advise STIX FIDELIDADE E INTELIGENCIA S.A. of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at valter.viana@soustix.com.br and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from STIX FIDELIDADE E INTELIGENCIA S.A.

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to valter.viana@soustix.com.br and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with STIX FIDELIDADE E INTELIGENCIA S.A.

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to valter.viana@soustix.com.br and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: https://support.docusign.com/guides/signer-guide-signing-system-requirements.

Acknowledging your access and consent to receive and sign documents electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify STIX FIDELIDADE E INTELIGENCIA S.A. as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by STIX FIDELIDADE E INTELIGENCIA S.A. during the course of your relationship with STIX FIDELIDADE E INTELIGENCIA S.A..

bradesco

CONFIDENTIAL

Curitiba, August 04, 2025.

We hereby declare, for all due purposes, that Mr. JOSE EVANDEILTON LOPES, holder of CPF number 045.131.684-39, was an employee of this company from 01/03/2023, to 01/11/2024, with his last position being a DATA SCIENTIST III.

BANCO BRADESCO S.A.

60.746.948/8488-63

172181 – Wesley Rumpf de Castro Cruz

"This document was issued at the request of the data subject and may contain personal data subject to Resolution 4658 of the National Monetary Council and Law 13.709/2018 (General Data Protection Law). This data may only be used for the purposes stated in the request, for which the Human Resources Department identified a legal basis allowing its sharing, its use for any other purpose is prohibited. The data must be destroyed once the declared purposes have been fulfilled."

Curitiba, August 4, 2025.

To: Immigration Officer and Whom It May Concern.

I, Wescley Rumpf de Castro Cruz, holder of CPF number 007.255.589-03, a full-time employee at Banco Bradesco S.A. since 02/01/2010, currently holding the position of Data Scientist Manager, hereby declare, for all due purposes, that Mr. JOSE EVANDEILTON LOPES, holder of CPF number 045.131.684-39, was employed at Banco Bradesco S.A. from 01/03/2023, to 01/11/2024, with his last position being a DATA SCIENTIST III, under a full-time CLT (Consolidation of Labor Laws) employment contract.

José was part of the data science and modeling team dedicated to the Installments and Financing segment for Business Clients, with a particular focus on Micro and Small Enterprises. In this challenging context, José played a critical role in balancing business growth with strict credit risk management.

Throughout 2023, José played a leading role in the creation and implementation of innovative credit policies and strategies, which had a positive impact on the institution's results. Skillfully applying tools such as SAS, R, Python, and Databricks, he developed and deployed advanced analytical models, including credit scoring models and decision matrices, which positively influenced the credit portfolio.

I highlight his unique ability to translate complex analyses into practical and effective policies, contributing to the robust and sustainable performance of our credit portfolio. In addition to conducting in-depth analytical studies, José significantly improved internal data processing procedures and led the modernization and enhancement of legacy credit policy repositories, bringing valuable knowledge to the team.

His visual and written communication skills were also evident in the creation of clear reports and intuitive visualizations, which were essential in supporting the bank's senior management in strategic decision-making.

Considering his outstanding performance and the consistent results achieved, I can confidently affirm that José possesses the technical expertise, practical experience, and interpersonal skills necessary to handle complex challenges in data science, especially within financial contexts that demand strong analytical rigor and operational efficiency. I also reaffirm his high standards of integrity and professional ethics.

I remain at your disposal for any additional information.

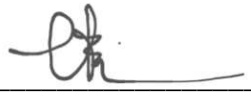
Sincerely,

-----//Signature//----

Wescley Rumpf de Castro Cruz

Credit Risk Manager | +55 41 99246-5756 | wescley_cci@hotmail.com

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 11, 2025.

bradesco

CONFIDENCIAL

Curitiba, 04 de Agosto de 2025.

Declaramos para os devidos fins, que o(a) Sr.(a) JOSE EVANDEILTON LOPES, portador(a) do CPF número 045.131.684-39, foi funcionário(a) desta empresa no período de 03.01.2023 à 11.01.2024, sendo que seu último cargo foi DATA SCIENTIST III.

BANCO BRADESCO S.A.

60.746.948/8488-63

172181 - Wesdey Rumpf de Castro Cruz

"Esse documento foi emitido por solicitação do titular dos dados, e pode conter dados pessoais sujeitos à Resolução 4658 do Conselho Monetário Nacional e à Lei 13.709/2018 (Lei Geral de Proteção de Dados). Esses dados somente podem ser utilizados para os fins declarados na solicitação, ocasião em que o Departamento de Recursos Humanos identificou uma base legal que permite o seu compartilhamento, sendo vedado seu uso para qualquer outra finalidade. Os dados devem ser destruídos logo após o atingimento dos objetivos declarados."

Curitiba, 04 de agosto de 2025.

A/C Oficial de Imigração e a quem possa interessar.

Eu, Wescley Rumpf de Castro Cruz, portador do CPF número 007.255.589-03, colaborador ativo em tempo integral no Banco Bradesco S.A. desde 01/02/2010, com o cargo atual de Data Scientist Manager, declaro para os devidos fins, que o Sr. JOSE EVANDEILTON LOPES, portador do CPF número 045.131.684-39, foi funcionário no Banco Bradesco S.A. no período de 03.01.2023 a 11.01.2024, sendo que seu último cargo foi DATA SCIENTIST III, em regime CLT integral.

José integrou a equipe de ciência de dados e modelagem dedicada ao segmento de Parcelados e Financiamentos para Pessoas Jurídicas, especialmente voltado para Micro e Pequenas Empresas. Diante desse cenário desafiador, José desempenhou um papel crítico no equilíbrio entre expansão e gestão rigorosa do risco ao crédito.

Ao longo de 2023, José foi protagonista na criação, implementação políticas e estratégias inovadoras de crédito, cujo impacto refletiu-se positivamente nos resultados da instituição. Aplicando habilmente ferramentas como SAS, R, Python e DataBricks, desenvolveu e aplicou modelos analíticos avançados, incluindo scores de crédito e matrizes de decisão impactando positivamente a carteira de crédito.

Destaco sua habilidade singular em traduzir análises complexas em políticas práticas e eficazes, contribuindo para o desempenho robusto e sustentável da nossa carteira. Além dos estudos analíticos profundos, José aprimorou significativamente os processos internos de tratamento de dados e promoveu a atualização e melhoria dos repositórios legados das políticas de crédito, agregando um valioso conhecimento à equipe.

Sua capacidade de comunicação visual e escrita também se refletiu na criação de relatórios claros e visuais intuitivos, fundamentais para subsidiar decisões estratégicas da alta gestão do banco.

Considerando seu desempenho notável e os resultados consistentes obtidos, asseguro que José possui o domínio técnico, experiência prática e habilidades interpessoais necessárias para lidar com desafios complexos na ciência de dados, especialmente em contextos financeiros demandantes de rigor analítico e eficácia operacional. Reafirmo os altos padrões de ilibada conduta e ética profissional.

Coloco-me à disposição para qualquer informação adicional.

Atenciosamente,

Wescley Rumpf de Castro Cruz

Gerente de Risco de Crédito | +55 41 99246-5756 | wescley_cci@hotmail.com

Docusign Envelope ID: FFFF8E2F-548D-424F-8448-5EF6E4015143

Avenida Marcos Penteado de Ulhôa Rodrigues, 939
Alphaville - Jacarandá Tower, Suites 301 and 302
ZIP Code 06460-040 - Barueri - São Paulo - Brazil

br.clear.sale I @clearsale

STATMENT

August 8, 2025

To whom it may concern,

This letter certifies that Mr. JOSE EVANDEILTON LOPES worked as a full-time MODELING ANALYST II at ClearSale S.A. from October 22, 2018, to September 17, 2021. In this role, he demonstrated consistent career progression, showing increasing levels of responsibility and expertise in his field, with a monthly salary of R$ 8,432.19. His duties as a Modeling Analyst II included the following:

- Manage and enhance the anomaly detection system for the continuous and effective monitoring of approximately 15 machine learning models in production.
- Develop a tool in R Shiny to optimize the creation of management reports, enabling quick analysis of model performance, accuracy, and stability.
- Collaborate with the development team in the continuous improvement process of the models, providing data and performance analyses.
- Participate in the development of machine learning models for a strategic partner in the food delivery sector, focusing on fraud prevention.
- Contribute to the dissemination of statistical knowledge within management, supporting the technical training of the modeling and monitoring team.

Please do not hesitate to contact me at bianca.sousa@clear.sale or +55 11 99359-9039 if you have any further questions regarding Mr. JOSE EVANDEILTON LOPES's employment or qualifications.

Sincerely,

DocuSigned by:
Bianca de Sousa Santos
D39292ABB4749B...

Bianca de Sousa Santos
Human Resources Analyst
bianca.sousa@clear.sale

Classification - Restricted

Certificate of Completion

Envelope ID: FFFF8E2F-548D-424F-8448-5EF6E4015143
Subject: JOSE EVANDEILTON LOPES
Source envelope:
Document pages: 1
Certified pages: 1
Guided Signing: Enabled
Seal with Envelope ID: Enabled
Time Zone: (UTC-03:00) Brasília

Signatures: 1
Initials: 0

Status: Completed

Envelope sender:
Bianca de Sousa Santos
Rua Achilles Orlando Curtolo 349
SP, 01144-010
bianca.sousa@clear.sale
IP Address: 45.173.36.34

Record tracking

Status: Original
August 8, 2025 | 3:00 PM

Holder: Bianca de Sousa Santos
bianca.sousa@clear.sale

Location: DocuSign

Signer events	Signature	Date and time log
Bianca de Sousa Santos bianca.sousa@clear.sale Clear Sale SA Security Level: Email, Account Authentication (None)	DocuSigned by:  D392920ABB4749B... Signature Adoption: Pre-selected style IP Address Used: 45.173.36.34	Sent: August 8, 2025 | 3:00 PM Viewed: August 8, 2025 | 3:00 PM Signed: August 8, 2025 | 3:01 PM

Electronic Signature and Record Disclosure:
Not provided through DocuSign

In-person signer events	Signature	Date and time record

Sender delivery events	Status	Date and time record

Agent delivery event	Status	Date and time record

Intermediate delivery events	Status	Date and time record

Certified delivery events	Status	Date and time record

Copy events	Status	Date and time record

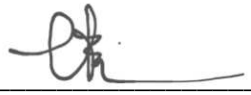
Witness events	Signature	Date and time record

Notary events	Signature	Date and time record

Envelope summary events	Status	Timestamp
Envelope sent	With hash/encrypted	August 8, 2025 | 3:00 PM
Certified delivery	Security verified	August 8, 2025 | 3:00 PM
Signature completed	Security verified	August 8, 2025 | 3:01 PM
Completed	Security verified	August 8, 2025 | 3:01 PM

Payment events	Status	Timestamp

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 11, 2025.

Docusign Envelope ID: FFFF8E2F-548D-424F-8448-5EF6E4015143

ClearSale

Av. Marcos Penteado de Ulhôa Rodrigues, 939
Alphaville - Torre Jacarandá, Conjuntos 301 e 302
CEP 06460-040 - Barueri - SP - Brasil

br.clear.sale | @clearsale

DECLARAÇÃO

08 de agosto de 2025

A quem possa interessar,

Esta carta certifica que o Sr. JOSE EVANDEILTON LOPES trabalhou como ANALISTA DE MODELAGEM II em tempo integral na empresa ClearSale S.A. de 22 de outubro de 2018 até 17 de setembro de 2021. Neste cargo, ele demonstrou progressão consistente na carreira, apresentando níveis crescentes de responsabilidade e expertise em sua área, com um salário mensal de R$ 8432,19. Suas funções como Analista de Modelagem II incluíam o seguinte:

- Gerenciar e aprimorar o sistema de detecção de anomalias para o monitoramento contínuo e eficaz de aproximadamente 15 modelos de machine learning em produção.
- Desenvolver uma ferramenta em R Shiny para otimizar a criação de relatórios gerenciais, permitindo a análise rápida da performance, acurácia e estabilidade dos modelos.
- Colaborar com a equipe de desenvolvimento no processo de melhoria contínua dos modelos, fornecendo dados e análises de performance.
- Participar do desenvolvimento de modelos de machine learning para um parceiro estratégico do setor de entrega de alimentos, com foco no combate a fraudes.
- Atuar na disseminação de conhecimento estatístico dentro da gerência, contribuindo para a capacitação técnica da equipe de modelagem e monitoramento.

Por favor, não hesite em entrar em contato comigo pelo e-mail bianca.sousa@clear.sale ou +5511993599039, caso tenha mais dúvidas sobre o emprego ou as qualificações do Sr. JOSE EVANDEILTON LOPES.

Atenciosamente,

DocuSigned by:
Bianca de Sousa Santos
D392920ABB4749B...

Bianca de Sousa Santos
Analista de Recursos Humanos
bianca.sousa@clear.sale

Certificado de Conclusão

Identificação de envelope: FFFF8E2F-548D-424F-8448-5EF6E4015143
Status: Concluído
Assunto: JOSE EVANDEILTON LOPES
Envelope fonte:
Documentar páginas: 1
Assinaturas: 1
Remetente do envelope:
Certificar páginas: 1
Rubrica: 0
Bianca de Sousa Santos
Assinatura guiada: Ativado
Rua Achilles Orlando Curtolo 349
Selo com EnvelopeId (ID do envelope): Ativado
SP, 01144-010
Fuso horário: (UTC-03:00) Brasília
bianca.sousa@clear.sale
Endereço IP: 45.173.36.34

Rastreamento de registros

Status: Original
Portador: Bianca de Sousa Santos
Local: DocuSign
08 de agosto de 2025 | 15:00
bianca.sousa@clear.sale

Eventos do signatário	Assinatura	Registro de hora e data
Bianca de Sousa Santos bianca.sousa@clear.sale Clear Sale SA Nível de segurança: E-mail, Autenticação da conta (Nenhuma)	DocuSigned by: Bianca de Sousa Santos D982620AEB<749B... Adoção de assinatura: Estilo pré-selecionado Usando endereço IP: 45.173.36.34	Enviado: 08 de agosto de 2025 | 15:00 Visualizado: 08 de agosto de 2025 | 15:00 Assinado: 08 de agosto de 2025 | 15:01

Termos de Assinatura e Registro Eletrônico:
Não oferecido através da Docusign

Eventos do signatário presencial	Assinatura	Registro de hora e data

Eventos de entrega do editor	Status	Registro de hora e data

Evento de entrega do agente	Status	Registro de hora e data

Eventos de entrega intermediários	Status	Registro de hora e data

Eventos de entrega certificados	Status	Registro de hora e data

Eventos de cópia	Status	Registro de hora e data

Eventos com testemunhas	Assinatura	Registro de hora e data

Eventos do tabelião	Assinatura	Registro de hora e data

Eventos de resumo do envelope	Status	Carimbo de data/hora
Envelope enviado	Com hash/criptografado	08 de agosto de 2025 | 15:00
Entrega certificada	Segurança verificada	08 de agosto de 2025 | 15:00
Assinatura concluída	Segurança verificada	08 de agosto de 2025 | 15:01
Concluído	Segurança verificada	08 de agosto de 2025 | 15:01

Eventos de pagamento	Status	Carimbo de data/hora

Barueri, SP, September 8, 2025.

Dear Sirs,

BOA VISTA SERVIÇOS S.A., a company of the Equifax Group, registered with CNPJ under No. 11.725.176/0001-27, with headquarters at Avenida Tamboré, 267, South Tower, 15th floor, Barueri, SP, CEP 06460-000 (“Boa Vista”) hereby certifies, for all due purposes, that **Mr. JOSE EVANDEILTON LOPES**, Brazilian, holder of CPF No. 045.131.684-39, was employed by our company from 07/03/2017 until 10/11/2018, holding the last position of SENIOR MODEL ANALYST.

We are available for any questions.

Rosely Franca

Rosely Franca (Sep 9, 2025 08:13:45 ADT)

BOA VISTA SERVIÇOS S.A.
Name: Rosely Maria Staseuskas França
CPF: 059.416.738-84

JOSE EVANDEILTON LOPES DECLARAÇÃO 2025

Final Audit Report 2025-09-09

Created:	2025-09-09
By:	Eliane Imperador (eliane.imperador@equifax.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAxPY98phsR7QrupJBabLYcHxNzuBgbKRt

"JOSE EVANDEILTON LOPES DECLARAÇÃO 2025" History

Document created by Eliane Imperador (eliane.imperador@equifax.com)
2025-09-09 - 0:37:53AMGMT-IPaddress:163.116.224.124

Document emailed to Rosely Franca (rosely.franca@equifax.com) for signature
2025-09-09 - 0:38:36AMGMT

Email viewed by Rosely Franca (rosely.franca@equifax.com)
2025-09-09 - 11:13:21AMGMT-IPaddress:66.102.8.161

Document e-signed by Rosely Franca (rosely.franca@equifax.com)
SignatureDate:2025-09-09 - 11:13:45AMGMT - TimeSource:server-IPaddress:163.116.224.116

Agreement completed.
2025-09-09 - 11:13:45AMGMT

EQUIFAX Powered by Adobe Acrobat Sign

August 1, 2025

To Whom It May Concern,

This letter is to certify that Mr. José Evandeilton Lopes worked as a full-time Senior Modeling Analyst at Boa Vista SCPC from July 2017 to October 2018. During this period, I had the privilege of managing him until my departure from the company in April 2018.

In this role, Mr. Lopes consistently demonstrated exceptional performance, with remarkable proactivity in identifying business needs and translating them into innovative, data-driven solutions. He became a key reference within the team due to his rare combination of technical expertise and business acumen, generating tangible value for the organization.

His main duties as a Senior Modeling Analyst included:

• Developing and implementing advanced modeling solutions aligned with business objectives.

• Bridging communication between technical teams and business stakeholders to ensure impactful outcomes.

• Designing and optimizing analytical processes to improve decision-making.

• Sharing knowledge and mentoring team members, fostering innovation within the department.

Mr. Lopes's contributions went beyond expectations, showcasing leadership, innovation, and a high capacity to deliver solutions that created measurable business value. Please do not hesitate to contact me at felipefb15@gmail.com should you have any further questions regarding Mr. Lopes's employment or qualifications.

Sincerely,



_____

Felipe Filgueira Barral

Managing Partner

Avintis Ltda

_____

Felipe Filgueira Barral – Digital Signature via gov.br

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

Date: November 5, 2025

EQUIFAX | BoaVista

Barueri, SP, 08 de setembro 2025.

Prezados Senhores,

BOA VISTA SERVIÇOS S.A., empresa do Grupo Equifax, inscrita no CNPJ sob o no 11.725.176/0001-27, com sede na Avenida Tamboré, 267, Torre Sul, 15º pavimento, Barueri, SP, CEP 06460-000 ("Boa Vista") declara, para os devidos fins, que o **Sr(a). JOSE EVANDEILTON LOPES**, de nacionalidade brasileira, portador(a) do CPF nº 045.131.684-39 foi nosso(a) contratado(a), de 03/07/2017 até 11/10/2018 , exercendo a última função de ANALISTA SR MODELOS.

Estamos a disposição para quaisquer dúvidas.

Rosely Franca
Rosely Franca (Sep 9, 2025 08:13:45 ADT)

BOA VISTA SERVIÇOS S.A.
Nome: Rosely Maria Staseuskas França
CPF: 059.416.738-84

JOSE EVANDEILTON LOPES DECLARAÇÃO 2025

Final Audit Report 2025-09-09

Created:	2025-09-09
By:	Eliane Imperador (eliane.imperador@equifax.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAxPY98phsR7QrupJBabLYcHxNzuBgbKRt

"JOSE EVANDEILTON LOPES DECLARAÇÃO 2025" History

Document created by Eliane Imperador (eliane.imperador@equifax.com)
2025-09-09 - 0:37:53AMGMT-IPaddress:163.116.224.124

Document emailed to Rosely Franca (rosely.franca@equifax.com) for signature
2025-09-09 - 0:38:36AMGMT

Email viewed by Rosely Franca (rosely.franca@equifax.com)
2025-09-09 - 11:13:21AMGMT-IPaddress:66.102.8.161

Document e-signed by Rosely Franca (rosely.franca@equifax.com)
SignatureDate:2025-09-09 - 11:13:45AMGMT - TimeSource:server-IPaddress:163.116.224.116

Agreement completed.
2025-09-09 - 11:13:45AMGMT

EQUIFAX Powered by Adobe Acrobat Sign

August 1, 2025

To Whom It May Concern,

This letter is to certify that Mr. José Evandeilton Lopes worked as a full-time Senior Modeling Analyst at Boa Vista SCPC from July 2017 to October 2018. During this period, I had the privilege of managing him until my departure from the company in April 2018.

In this role, Mr. Lopes consistently demonstrated exceptional performance, with remarkable proactivity in identifying business needs and translating them into innovative, data-driven solutions. He became a key reference within the team due to his rare combination of technical expertise and business acumen, generating tangible value for the organization.

His main duties as a Senior Modeling Analyst included:

• Developing and implementing advanced modeling solutions aligned with business objectives.

• Bridging communication between technical teams and business stakeholders to ensure impactful outcomes.

• Designing and optimizing analytical processes to improve decision-making.

• Sharing knowledge and mentoring team members, fostering innovation within the department.

Mr. Lopes's contributions went beyond expectations, showcasing leadership, innovation, and a high capacity to deliver solutions that created measurable business value. Please do not hesitate to contact me at felipefb15@gmail.com should you have any further questions regarding Mr. Lopes's employment or qualifications.

Sincerely,



_____

Felipe Filgueira Barral

Managing Partner

Avintis Ltda

_____

Felipe Filgueira Barral – Digital Signature via gov.br

Exhibit C.I – First Prong – Substantial Merit and National Importance



Name: José Evandeilton Lopes
Phone: +55 (41) 98840-8938
E-mail: evandeilton@gmail.com
Position: General Manager & Senior Data Scientist

Contents

1.0 EXECUTIVE SUMMARY 4
1.1 Nature and Scope of the Business 5
1.2 Mr. José Evandeilton Lopes's Expertise 6
2.0 THE COMPANY 9
2.1 Company's Target 10
2.2 Needs for the Company's Services 11
2.3 Company's Expansion 13
2.4 Company's Economic Benefits 14
2.4.1 Financial Highlights Chart 16
2.4.2 Federal, State and Payroll Taxes Chart 16
2.5 Summary of Investment 17
2.5.1 Startup Requirements Table 18
2.5.2 Startup Requirements Chart 18
3.0 COMPANY'S SERVICES 19
4.0 INDUSTRY OVERVIEW 23
4.1 Industry Analysis 25
4.2 Major Market Segmentation 27
4.3 Business Location 30
5.0 STRATEGY AND IMPLEMENTATION 31
5.1 Swot Analysis 33
5.1.1 Strengths 33
5.1.2 Weaknesses 34
5.1.3 Opportunities 34
5.1.4 Threats 34
5.2 Website and Digital Marketing 35
5.3 Sales Strategy 37
5.4 Sales Forecast 38
5.4.1 How Sales Were Calculated 39
5.4.2 Annual Sales Forecast Table 41
5.4.3 Monthly Sales Chart 42
5.4.4 Annual Sales Chart 42
6.0 MANAGEMENT STRUCTURE 43
6.1 Staffing Requirements 43
6.1.1 How the Hiring Plan Was Calculated 44
6.2 Annual Personnel Plan Table 47
6.3 Five-Year Personnel Plan Table 47
6.4 Organizational Chart – Year 5 48
6.5 Duties and Responsibilities 48
7.0 FINANCIAL SUMMARY 50

7.1 Break-even Analysis 51
7.1.1 Break-even Analysis Chart 51
7.2 Profit and Loss Assumptions 51
7.2.1 Annual Profit and Loss Table 53
7.2.2 Monthly Profit Chart 54
7.2.3 Monthly Expenses x Sales Chart 54
7.2.4 Annual Profit Chart 55
7.2.5 Annual Expenses x Sales Chart 55
7.3 Cash Flow Assumptions 56
7.3.1 Annual Cash Flow Table 57
7.3.2 Monthly Net Cash Flow and Cash Balance Chart 58
7.3.3 Annual Net Cash Flow and Cash Balance Chart 58
7.4 Balance Sheet Assumptions 59
7.4.1 Annual Balance Sheet Table 60
8.0 MR. JOSÉ EVANDEILTON LOPES'S NATIONAL-LEVEL IMPACT 61
8.1 Government incentives 63
9.0 INDIRECT JOBS CREATION - ECONOMIC POLICY INSTITUTE 64
APPENDIX 1
Monthly Sales Forecast Table 1
Monthly Personnel Plan Table 3
Monthly Profit and Loss Table 4
Monthly Cash Flow Table 5
Monthly Balance Sheet Table 6

1.0 Executive Summary

JL Data Dynamics will be established by Mr. José Evandeilton Lopes as a data science and statistical consulting firm specializing in **fraud detection, credit risk modeling, machine learning solutions, and AI-driven automation for financial risk workflows**. The company will be headquartered in Raleigh, North Carolina, serving clients nationwide, including financial institutions, fintech companies, telecommunications firms, e-commerce platforms, and research organizations.

The company will deliver advanced analytical and statistical services, including predictive modeling, fraud analytics, credit scoring, data quality improvement, and applied data science training. In addition, JL Data Dynamics will integrate **automation systems, intelligent bots, and AI-powered agents** to support real-time fraud monitoring, credit decisioning, and risk-mitigation activities. These solutions will help organizations strengthen financial defenses, accelerate decision intelligence, reduce operational costs, and build scalable analytical infrastructures aligned with U.S. market needs and regulatory standards.

Mr. Lopes is a data scientist with more than 12 years of experience in credit and fraud risk analytics. He has led data-driven solutions for major institutions, including Bradesco, ClearSale, and Boa Vista SCPC. He holds advanced academic training in statistical methods, including a master's degree and current Ph.D. research focused on Bayesian networks, and has extensive expertise in predictive modeling, machine learning, statistical programming in R and Python, and applied model governance.

National Priorities / U.S. Needs

The business directly supports U.S. national priorities related to financial system security, cybersecurity, data infrastructure modernization, and workforce development. Fraud detection and credit risk modeling play a critical role in protecting the integrity of the national financial system and in supporting regulatory compliance efforts across multiple sectors.

This aligns with several federal initiatives and strategies, including:

- **National AI Initiative Act of 2020** – Promotes U.S. leadership in artificial intelligence and advanced analytics.[1]
- **National Strategy for Combatting Terrorist and Other Illicit Financing** – Emphasizes the importance of fraud prevention and financial risk management.[2]

[1] https://www.congress.gov/bill/116th-congress/house-bill/6216
[2] https://home.treasury.gov/news/press-releases/jy1522

- **Federal Trade Commission (FTC) Initiatives on Fraud Prevention** – Focuses on protecting consumers and businesses from financial crimes.[3]
- **National Cybersecurity Strategy (2023)** – Strengthens national resilience against cyber-enabled fraud and financial threats.[4]
- **U.S. Bureau of Labor Statistics – Occupational Outlook for Data Scientists** – Highlights national demand for qualified data professionals to support critical industries.[5]

These priorities emphasize:

- Strengthening fraud prevention and financial security infrastructure
- Expanding the use of data science and AI for risk mitigation
- Supporting SMBs in adopting analytical tools and compliance frameworks
- Addressing workforce shortages in data science and cybersecurity
- Promoting technological resilience in critical economic sectors

JL Data Dynamics is positioned to contribute to these objectives by delivering applied statistical solutions, fraud analytics, and workforce training programs that support financial stability and national economic competitiveness.

1.1 Nature and Scope of the Business

JL Data Dynamics will serve financial institutions, fintech companies, e-commerce businesses, research organizations, and small and medium-sized enterprises (SMEs) across the United States. Its primary focus will be providing analytical and technological solutions that strengthen financial risk management, fraud prevention, data governance, and decision-making processes.

As organizations across critical economic sectors become more data-driven, the demand for specialized analytical capabilities continues to increase. Fraud, credit risk, and operational inefficiencies remain major concerns, especially in industries that rely on high transaction volumes and regulatory compliance. JL Data Dynamics will address these challenges through a set of integrated and specialized services:

- **Advanced Statistical Modeling and Machine Learning Solutions** – Design and deployment of predictive and risk models using advanced statistical and machine learning techniques. The focus will be on credit risk scoring, fraud detection, forecasting, and performance monitoring to support informed and data-driven decision-making.

[3] https://www.ftc.gov/news-events/topics/identity-theft
[4] https://www.whitehouse.gov/briefing-room/statements-releases/2023/03/02/fact-sheet-national-cybersecurity-strategy/
[5] https://www.bls.gov/ooh/

- **Data Infrastructure and Governance Services** – Structuring, integrating, and maintaining data pipelines and storage environments to ensure security, reliability, and compliance with U.S. data protection standards. This includes database management, data quality assurance, process automation, and governance frameworks.
- **Fraud Risk Analytics and Decision Intelligence** – Development of analytical frameworks for fraud prevention, risk scoring, and anomaly detection. This includes the use of Bayesian networks, time-series models, and real-time dashboards to support faster and more accurate decision-making.
- **Data Science Training and Applied Statistical Education** – Delivery of training programs for professionals and organizations seeking to strengthen their analytical capabilities. This includes practical instruction in statistics, R and Python programming, model governance, and applied data science techniques.

JL Data Dynamics will collaborate with financial institutions, technology providers, and industry stakeholders to ensure its solutions align with evolving U.S. regulatory and economic priorities. The company's mission is to provide specialized analytical expertise that enhances fraud prevention, strengthens financial security, and expands access to data-driven tools, contributing to national economic resilience and innovation.

1.2 Mr. José Evandeilton Lopes's Expertise

Mr. José Evandeilton Lopes is a data scientist and statistician with more than 12 years of professional experience in credit risk modeling, fraud prevention, and applied statistical analysis. His career combines advanced academic training with hands-on implementation of analytical and machine learning solutions for major financial and technology companies.

Academic Background

Mr. Lopes holds a Bachelor's degree in Statistics (2009–2013) from the Federal University of Paraná (UFPR), where he completed his undergraduate thesis titled *"Simplex and Mixed Simplex Regression Models with Applications."*

He earned both his Master's degree (2021–2023) and is currently pursuing his Ph.D. (2024–present) in the Graduate Program in Numerical Methods in Engineering (PPGMNE) at UFPR, specializing in the Mathematical Programming/Statistical Methods research track. His master's research focused on beta regression models for scale data under the supervision of Professor Wagner Hugo Bonat, while his Ph.D. research centers on Bayesian networks, probabilistic graphical models, and Bayesian learning applied to risk modeling and decision intelligence.

In addition to his graduate studies, Mr. Lopes completed an MBA in Business Intelligence (2014–2016) at Universidade Positivo in Brazil and holds professional certifications from the University

of Michigan (USA), including **Mastering Software Development in R** (2017–2018) and **Applied Data Science with Python**.

His academic contributions include peer-reviewed publications, notably *"Likelihood Analysis for a Class of Simplex Mixed Models"* published in the *Chilean Journal of Statistics* (2018). He has also developed instructional materials and courses focused on applied statistics and R programming for data science applications.

Professional Experience

Mr. Lopes has built his career through progressively senior positions in the fields of credit risk, fraud prevention, data science, and statistical modeling:

- **Consultant – Data Science (2024–Present)**

  Stix Fidelidade e Inteligência S.A. — Barueri, SP, Brazil

  Works as a data science consultant focused on the development of statistical and machine learning models for loyalty and credit systems. Leads projects in risk analytics, fraud detection, and predictive modeling. Responsible for model deployment, monitoring, and performance analysis in high-volume environments.

  • **Data Scientist III (2023–2024)**

  Bradesco — Curitiba, PR, Brazil

  As a member of the data science team within the Corporate Working Capital (SMEs) segment, participated in the study, design, and implementation of more than 50 credit policies in 2023, directly impacting the segment's performance in 2024. His work influenced a strategic portfolio of approximately BRL 100 billion and a client base of 1.8 million corporate customers (MPMEs). Using SAS and Databricks, developed credit score analyses and decision matrices for risk mitigation, contributing to the safe expansion of the loan portfolio, which grew by 20.7% during the period. Additionally, produced dashboards, visualizations, and analytical reports utilized by senior management to support strategic decision-making.

- **Fraud Analytics and Risk Modeling Analyst (2018–2021)**

  ClearSale — São Paulo, Brazil

  Contributed to building and updating statistical models used to support fraud prevention in large-scale e-commerce transactions. Monitored scoring systems and developed business intelligence dashboards to improve operational decision-making.

- **Senior Fraud and Risk Modeling Analyst (2017–2018)**

  BoaVista SCPC — São Paulo, Brazil

Developed credit and fraud risk models to support scoring systems and behavioral analysis. Implemented analytical frameworks to detect anomalies and reduce financial losses. Conducted model governance processes, including performance, stability, and accuracy assessments.

- **Franchising Analyst (2015–2017)**
- O Boticário Franchising — Curitiba, Brazil

  Responsible for the development and monitoring of business intelligence systems to assess franchise network performance. Conducted statistical analyses and reporting for executive decision-making.

- **Senior IT Capacity Analyst (2014–2015)**
- Global Village Telecom (GVT) — Curitiba, Brazil

  Applied statistical methods for capacity planning, performance monitoring, and operational risk mitigation in IT environments. Developed forecasting indicators and early-warning systems to reduce incident rates.

Throughout his career, Mr. Lopes has consistently worked with high-volume transactional environments, integrating statistical modeling, predictive analytics, and data governance strategies to support fraud prevention and financial stability.

- **Credit Risk Analyst (2012–2014)**
- HSBC Bank Brasil — Curitiba, Brazil

  Worked on credit evaluation processes and contributed to the development of analytical models to support risk-based decision-making in consumer credit operations.

Technical Expertise

- **Programming Languages:** R (advanced), Python (pandas, numpy, matplotlib, scikit-learn), SAS, SQL, SPSS.
- **Tools and Platforms:** R Shiny, Power BI, Tableau, SQL Server, PL/SQL, Oracle.
- **Core Competencies:**
  - Credit and fraud risk modeling
  - Bayesian networks and probabilistic graphical models
  - Time-series analysis and regression modeling
  - Data pipeline design and data governance
  - Dashboard development and automation

- Model performance monitoring and reporting

- **Teaching and Mentoring:** Instructor of applied statistics and R programming through Udemy, mentoring over 850 professionals and students in data science applications.

Mr. José Evandeilton Lopes combines advanced statistical training, technical expertise, and applied experience in risk analytics. This combination positions him to lead JL Data Dynamics with a strong foundation in developing and implementing analytical solutions that align with U.S. financial security, data governance, and innovation priorities.

2.0 The Company

JL Data Dynamics will specialize in advanced statistical modeling, credit and fraud risk analytics, machine learning applications, and applied data science training. The company will provide analytical and decision-intelligence services to financial institutions, fintech companies, digital commerce platforms, insurance providers, and research-driven organizations seeking predictive accuracy and operational resilience.

JL Data Dynamics will build a multidisciplinary team focused on modeling, risk science, and scalable ML deployment, supported by lean data engineering and operational functions. The planned structure for Year 5 remains as follows:

- **1 General Manager & Senior Data Scientist** – Leads business strategy, directs modeling initiatives, and manages client engagements.
- **2 Lead Risk & Data Science Specialists** – Design and optimize predictive, credit scoring, and fraud detection models, perform model validation and monitoring.
- **2 Machine Learning Engineers** – Implement and maintain production ML pipelines, automate scoring systems, ensure model scalability and performance.
- **1 Data Engineer & Analytics Pipeline Specialist** – Builds analytical data sets (ABTs), develops data workflows that support model training and monitoring.
- **2 Statistical Modeling Analysts** – Support model design, feature engineering, and analytical data structuring; contribute to model documentation and governance, with focus on statistical foundations rather than infrastructure engineering.
- **2 Senior Fraud & Credit Analytics Scientists** – Lead risk-scoring methodologies, fraud-behavior modeling, and real-time detection strategies.
- **2 Applied Data Science Instructors** – Deliver professional training programs in applied statistics, R/Python modeling, and machine learning for business applications.
- **2 Project Managers** – Coordinate deliverables, manage timelines, and interface with clients and technical teams.

- **1 Marketing & Communications Specialist** – Drives brand positioning, thought-leadership initiatives, and digital outreach.
- **3 Business Development Representatives** – Build partnerships, generate enterprise leads, and expand the company's U.S. market presence.
- **1 Administrative Manager** – Manages operational, financial, and compliance processes.
- **2 Client Services & Support Specialists** – Provide client onboarding, reporting support, and customer relationship management.

JL Data Dynamics' mission is to enhance financial security, responsible AI adoption, and quantitative decision-making through applied statistical science, modern risk modeling, and talent development. By focusing on fraud prevention, credit scoring, and scalable predictive systems, the company will contribute to strengthening the U.S. financial system and supporting technology-driven economic growth.

2.1 Company's Target

JL Data Dynamics will focus on serving organizations that rely on accurate data-driven decision systems, secure financial operations, and advanced analytical capabilities. The company's solutions are tailored to industries facing increasing pressure to prevent fraud, manage credit risk, optimize customer behavior prediction, and build internal analytical capacity.

The company's target customers include:

- **Financial Institutions and Fintechs:** Banks, credit unions, lending institutions, and payment processors seeking advanced statistical modeling, fraud detection, credit scoring, and model governance solutions to minimize financial losses, comply with regulatory standards, and enhance operational resilience.
- **E-commerce and Retail Companies:** Online marketplaces and omnichannel retailers processing high transaction volumes and requiring predictive fraud models, customer-behavior analytics, and scalable ML solutions to manage risk during rapid operational cycles and growth periods.
- **Telecommunications Providers**: Telecom operators and digital communication platforms requiring churn prediction models, credit risk and fraud prevention analytics, and data-driven models for customer segmentation, usage patterns, and product optimization.
- **Loyalty, Rewards, and CRM-Driven Platforms**: Companies operating loyalty programs, subscription platforms, and membership-based services seeking to enhance customer lifetime value (CLV), predict churn, optimize incentives, and strengthen fraud-prevention mechanisms in reward ecosystems.

- **Small and Medium-Sized Enterprises (SMEs):** Organizations with limited internal analytics teams that require outsourced statistical expertise, model automation, and reporting modernization to remain competitive, reduce operational vulnerabilities, and improve decision intelligence.
- **Technology and Data-Driven Companies:** Digital platforms and software providers integrating financial or data-driven capabilities, needing predictive analytics, machine-learning-based anomaly detection, and proper data workflows to support scalable product development.
- **Educational Institutions and Corporate Training Programs:** Universities, professional academies, and corporate innovation labs seeking specialized instruction in applied statistics, R/Python programming, and machine learning to address U.S. workforce gaps in data science and quantitative fields.
- **Research Centers and Public Sector Initiatives:** Government programs, think tanks, and research organizations requiring statistical modeling, Bayesian network applications, and data analysis to support policy evaluation, risk assessment, and public-sector decision frameworks.

JL Data Dynamics will serve both established enterprises and underserved SMBs, delivering scalable and compliance-ready statistical solutions. By enabling better fraud detection, stronger credit intelligence, and advanced analytical training, the company will contribute to national priorities in financial security, responsible AI adoption, and workforce development.

2.2 Needs for the Company's Services

The demand for JL Data Dynamics' services is driven by significant shifts in the U.S. economic and regulatory environment. Financial institutions, e-commerce platforms, technology firms, and small businesses are facing increasing pressure to strengthen fraud prevention, modernize their data infrastructure, and adopt advanced analytical tools to remain competitive and compliant.

Several factors are driving this demand:

- **Rising Fraud and Financial Crime**

  Fraud schemes targeting financial institutions, payment systems, and e-commerce platforms continue to increase in scale and sophistication. According to the Federal Trade Commission (FTC), consumers reported more than $10 billion in losses due to fraud in 2023, a record high. Companies require advanced analytical solutions capable of detecting anomalies, scoring risk in real time, and minimizing financial losses.[6]

[6] https://www.ftc.gov/news-events/topics/identity-theft

- **Regulatory and Compliance Pressure in Financial Services**

  Financial institutions must comply with evolving regulations and reporting requirements to ensure the security of transactions, credit processes, and consumer data. This includes alignment with frameworks supported by the Financial Crimes Enforcement Network (FinCEN) and the Office of the Comptroller of the Currency (OCC). Organizations need specialized analytical capabilities to maintain compliance while reducing operational costs.[7]

- **Increasing Transaction Volumes in E-commerce and Fintech**

  E-commerce platforms and digital payment solutions are expanding rapidly, creating more opportunities for fraud and operational risk. Companies need scalable predictive models to monitor large volumes of transactions, detect fraud in real time, and protect consumer trust.

- **Data Infrastructure and Governance Challenges**

  Many businesses lack reliable data pipelines, governance frameworks, and integration capabilities needed to support advanced analytics. Poor data quality and fragmented infrastructure limit their ability to respond quickly to fraud and operational risks. JL Data Dynamics addresses this gap by providing data integration, governance, and reporting solutions that support secure and accurate decision-making.

- **Shortage of Skilled Data Professionals**

  The U.S. Bureau of Labor Statistics (BLS) projects continued strong demand for data scientists in financial services and other high-risk industries. Many organizations lack in-house expertise to design and implement predictive models or manage data governance. JL Data Dynamics will provide training and mentoring programs to build analytical capacity and reduce talent shortages.[8]

- **SMB Access to Advanced Analytics**

  Small and medium-sized businesses often face barriers to implementing fraud analytics and data governance frameworks due to limited budgets or technical capacity. By offering accessible, scalable solutions, JL Data Dynamics will enable SMEs to strengthen fraud prevention, improve compliance, and compete in data-intensive markets.

- **National Initiatives Supporting Financial Integrity and Cyber Resilience**

  Federal strategies such as the National AI Initiative and the National Cybersecurity Strategy emphasize the use of advanced analytics, AI, and data science to secure critical economic

[7] https://www.fincen.gov
[8] https://www.bls.gov/ooh/computer-and-information-technology/data-scientists.htm

sectors, improve fraud detection, and strengthen national resilience. JL Data Dynamics' services are directly aligned with these priorities.[9]

JL Data Dynamics is well positioned to meet these needs by providing advanced statistical modeling, fraud risk analytics, data infrastructure and governance solutions, and targeted data science training. These services will help organizations reduce financial losses, ensure regulatory compliance, improve operational efficiency, and strengthen national economic resilience.

2.3 Company's Expansion

JL Data Dynamics will implement a phased expansion strategy to scale its operations, diversify its client base, and build long-term financial stability. The growth plan will focus on expanding service capacity, increasing geographic reach, and strengthening the company's technological infrastructure to meet national market demands.

Phase 1 – Initial Operations (Year 1)

- Establish headquarters in North Carolina, a growing technology and financial hub.
- Focus on core services: Advanced Statistical Modeling and Machine Learning Solutions, Fraud Risk Analytics, Data Infrastructure and Governance, and Data Science Training.
- Build initial team to support service delivery and early client acquisition in the financial and e-commerce sectors.
- Prioritize contracts with fintech companies, payment processors, e-commerce platforms, and SMEs.

Phase 2 – Service and Team Expansion (Years 2–3)

- Expand the technical team with additional data scientists, machine learning engineers, and fraud analytics specialists.
- Develop partnerships with financial institutions, technology vendors, and academic organizations to support larger projects and research collaborations.
- Launch specialized training programs for corporate clients and educational institutions to address the national shortage of skilled data professionals.
- Invest in advanced infrastructure for real-time fraud detection and predictive modeling solutions.

[9] https://www.congress.gov/bill/116th-congress/house-bill/6216

Phase 3 – National Market Penetration (Years 4–5)

- Extend service coverage to government contractors, research institutions, and larger financial organizations.
- Establish satellite offices or strategic partnerships in other key U.S. regions with strong financial and technology markets.
- Scale consulting and training operations to serve clients across multiple sectors, including healthcare, education, and critical infrastructure.
- Build a strong portfolio of long-term contracts, including government and regulated industries, ensuring consistent revenue streams.

Phase 4 – Innovation and Strategic Growth (Beyond Year 5)

- Invest in proprietary analytical platforms and tools for fraud detection and credit risk modeling.
- Explore opportunities to offer Software-as-a-Service (SaaS) solutions for SMEs.
- Expand strategic alliances with universities, research institutions, and public agencies to support national AI and cybersecurity initiatives.
- Position the company as a national reference in applied data science and fraud analytics.

JL Data Dynamics' expansion strategy is designed to balance steady growth with operational sustainability, allowing the company to increase its impact across industries while maintaining high standards of service quality and technical excellence.

2.4 Company's Economic Benefits

JL Data Dynamics is projected to create significant economic value during its first five years of operation through the delivery of specialized services in advanced statistical modeling, fraud risk analytics, data infrastructure and governance, and data science training. As the demand for secure and intelligent data solutions continues to expand, the company will steadily grow its client base, scale service capacity, and secure long-term contracts across financial, technology, e-commerce, and other regulated sectors. This expansion will generate high-skilled employment, strengthen the local tax base, and contribute to broader economic development.

Projected Financial Performance

- **Revenue Growth** – Total sales are projected to increase from $588,000 in Year 1 to approximately $3.49 million in Year 5, reflecting strong market demand and the scalability of JL Data Dynamics' service model.
- **Gross Margin** – Gross margin is expected to grow from $540,960 in Year 1 to approximately $3.21 million in Year 5, supported by efficient operations and optimized service delivery.

- **Net Profit** – Net profit is forecasted to rise from $51,308 in Year 1 to approximately $217,977 in Year 5, demonstrating sustainable growth and financial resilience.

Tax and Employment Contributions

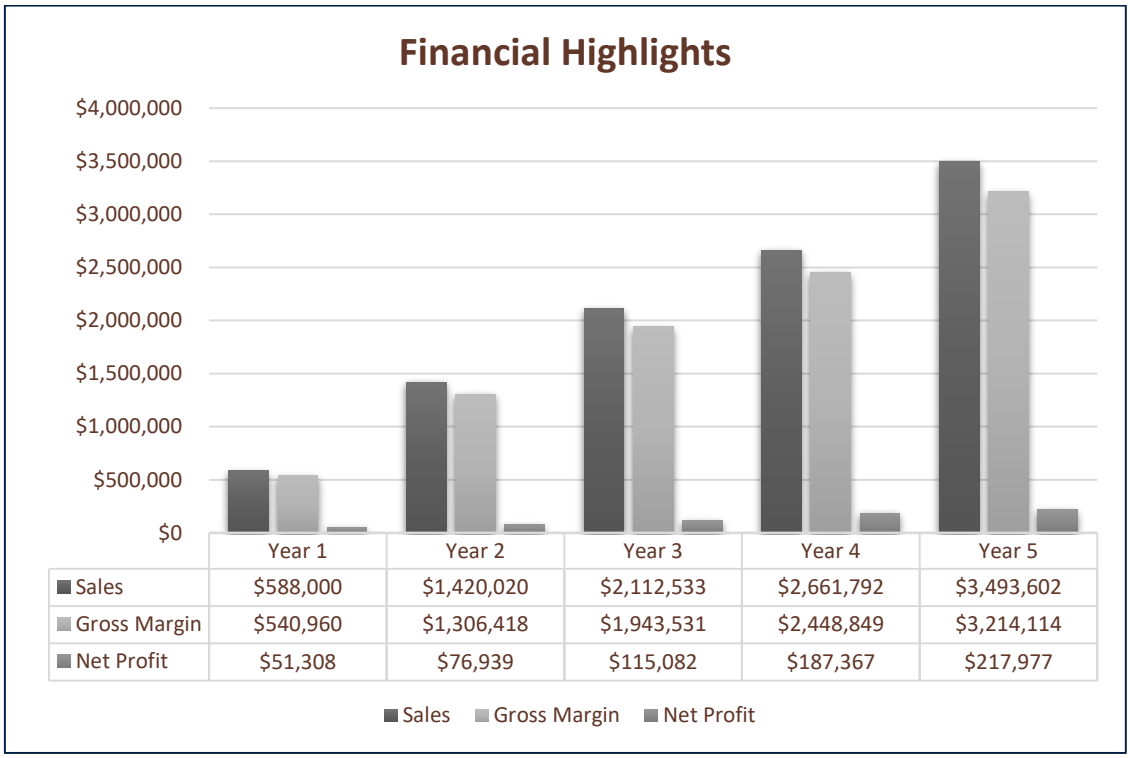
JL Data Dynamics' expansion will generate meaningful contributions to federal, state, and local tax revenues, as well as to the high-skilled job market:

- **Federal and State Tax Contributions** – Taxes are expected to grow from $18,977 in Year 1 to $80,622 in Year 5, with a five-year cumulative total of approximately $239,920.
- **Payroll Taxes** – Contributions are projected to increase from $39,625 in Year 1 to $256,841 in Year 5, totaling approximately $749,972 over five years.
- **Total Tax Revenue** – Combined tax contributions are anticipated to reach approximately $989,892 during the company's first five years of operation.

Broader Economic Impact

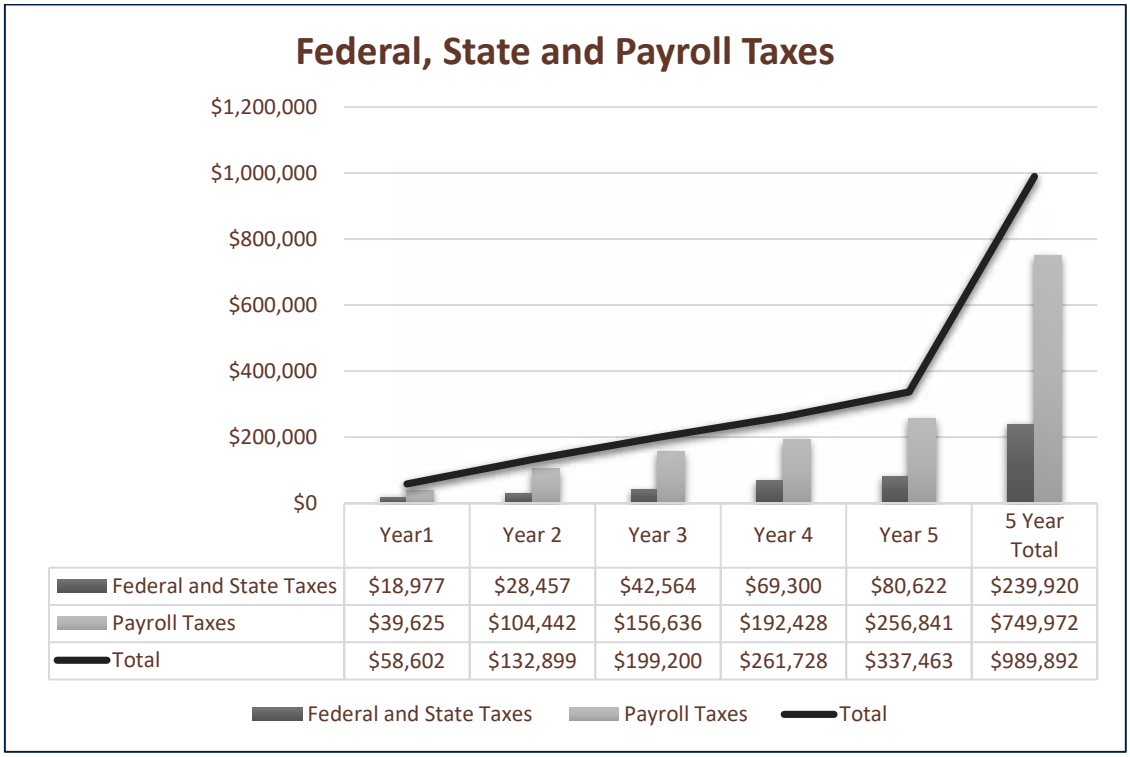
- **Job Creation** – The company will generate 21 positions in data science, machine learning, fraud analytics, and technical training.
- **Support for Small and Medium Businesses** – By providing accessible analytical and fraud prevention solutions, JL Data Dynamics will enable SMEs to compete in data-driven markets.
- **Contribution to National Priorities** – The company's services align with U.S. federal initiatives focused on financial security, AI innovation, and workforce development, supporting sustainable economic growth.

2.4.1 Financial Highlights Chart



	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	$588,000	$1,420,020	$2,112,533	$2,661,792	$3,493,602
Gross Margin	$540,960	$1,306,418	$1,943,531	$2,448,849	$3,214,114
Net Profit	$51,308	$76,939	$115,082	$187,367	$217,977

2.4.2 Federal, State and Payroll Taxes Chart



	Year1	Year 2	Year 3	Year 4	Year 5	5 Year Total
Federal and State Taxes	$18,977	$28,457	$42,564	$69,300	$80,622	$239,920
Payroll Taxes	$39,625	$104,442	$156,636	$192,428	$256,841	$749,972
Total	$58,602	$132,899	$199,200	$261,728	$337,463	$989,892

2.5 Summary of Investment

JL Data Dynamics will require an initial investment of $38,500 to launch its operations in North Carolina. This amount will cover the company's startup expenses and provide the necessary assets to ensure smooth and efficient operations from the outset.

Startup Expenses – $22,000

The startup expenses will be allocated strategically to build a professional and operational infrastructure:

- **Legal:** $1,000 to cover business formation, contract drafting, and regulatory compliance.
- **Insurance:** $500 for initial liability coverage to mitigate operational risks.
- **Marketing:** $5,000 to support branding, website development, and client outreach campaigns.
- **Rent/Deposit:** $7,000 to secure and prepare office space for administrative and operational activities.
- **Computers/Phones/Tablets:** $5,000 to equip the team with the necessary technology infrastructure.
- **Office Furniture:** $3,500 to furnish the workspace with essential items for a functional, professional environment.

Startup Assets – $16,500

The company will maintain $16,500 in **initial cash reserves** to cover early operational expenses, ensure financial flexibility, and address any unforeseen needs during the first months of activity.

Strategic Use of Investment

This investment will provide the foundation for JL Data Dynamics to deliver its core service offerings:

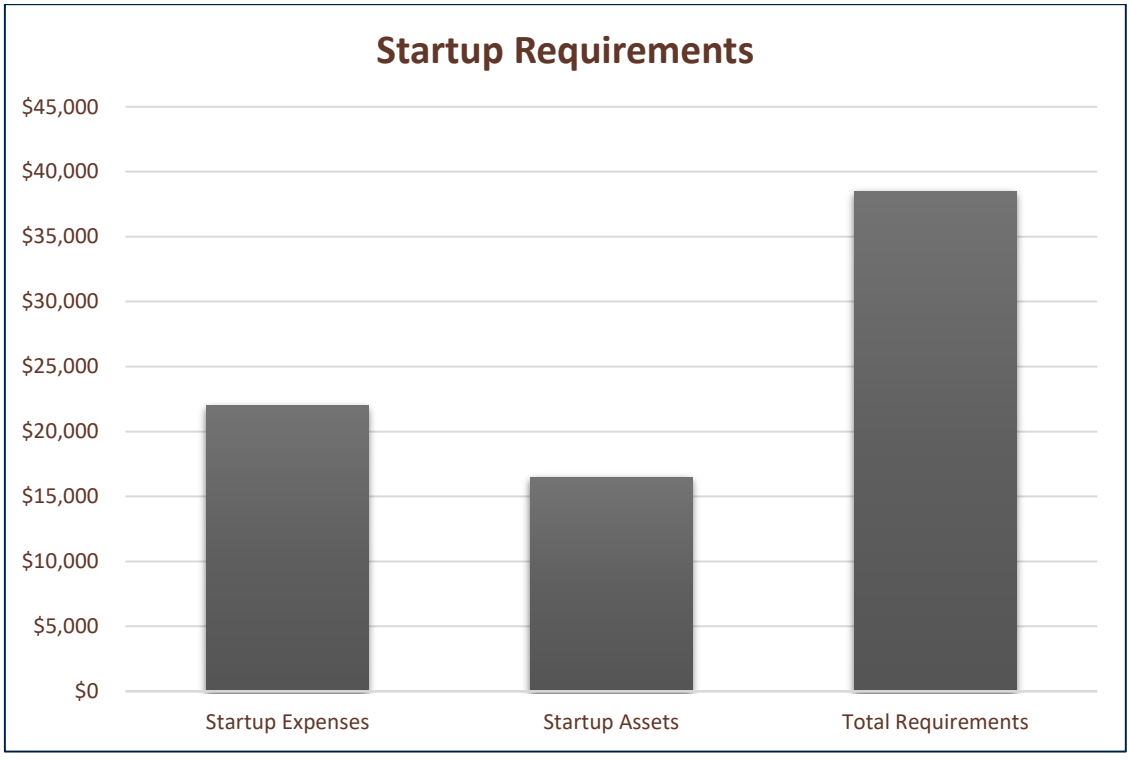
- Advanced Statistical Modeling and Machine Learning Solutions
- Fraud Risk Analytics and Decision Intelligence
- Data Infrastructure and Governance Services
- Data Science Training and Applied Statistical Education

Under the leadership of Mr. José Evandeilton Lopes, this structure will position JL Data Dynamics for scalable growth, the establishment of long-term client relationships, and regional and national market expansion.

2.5.1 Startup Requirements Table

Startup	
Requirements	
Startup Expenses	
Legal	$1,000
Insurance	$500
Marketing	$5,000
Rent/Deposit	$7,000
Computers/Phones/Tablets	$5,000
Office furniture	$3,500
Total Startup Expenses	$22,000
Startup Assets	
Cash Required	$16,500
Startup Inventory	$0
Other Current Assets	$0
Long-term Assets	$0
Total Assets	$16,500
Total Requirements	**$38,500**

2.5.2 Startup Requirements Chart



3.0 Company's Services

JL Data Dynamics will offer specialized data science and analytics solutions designed to strengthen operational intelligence, risk management, and decision-making across key industries in the United States. Its service portfolio is structured around four core areas: Advanced Statistical Modeling and Machine Learning Solutions, enabling organizations to build predictive models and automate decision processes; Data Infrastructure and Governance Services, ensuring structured, secure, and compliant data environments; Fraud Risk Analytics and Decision Intelligence, providing real-time risk detection and prevention strategies to reduce financial exposure; and Data Science Training and Applied Statistical Education, addressing the national talent gap by developing workforce capabilities through practical training programs. Together, these services position JL Data Dynamics as a strategic partner for companies seeking to leverage data as a driver of efficiency, security, and sustainable growth.

1. Advanced Statistical Modeling and Machine Learning Solutions



In today's data-driven economy, organizations across multiple sectors rely on timely, accurate insights to make critical operational and strategic decisions. Advanced statistical modeling and machine learning have become essential tools for financial institutions, e-commerce platforms, technology companies, and public entities to detect risks, improve efficiency, and maintain a competitive edge. However, many organizations struggle to design, implement, and maintain these complex analytical systems effectively.

Many U.S. companies, especially small and medium-sized businesses, face serious obstacles when trying to leverage data science strategically:

- **Limited internal expertise:** Building and maintaining machine learning models requires specialized statistical and computational skills that are often scarce or expensive to recruit.
- **Inefficient manual processes:** Without predictive modeling, organizations rely on reactive decision-making, leading to delays, errors, and missed opportunities.
- **Fragmented analytical infrastructure:** Data sources are often siloed, making it difficult to generate reliable insights in real time.
- **High cost of development and maintenance:** Large-scale analytical initiatives can be expensive and inefficient when handled internally, especially without proper architecture and governance.

The Solution

JL Data Dynamics will provide tailored modeling and machine learning services that allow companies to make accurate, data-driven decisions with reduced operational complexity and cost. The company will deliver:

- **Custom Predictive Models:** Development of advanced statistical and machine learning models tailored to each client's business needs, enabling proactive decision-making and early risk detection.
- **Automation of Analytical Workflows:** Implementation of automated data pipelines and model monitoring systems to minimize human error and increase operational efficiency.
- **Model Integration and Deployment:** Seamless integration of predictive models into existing systems and business processes, ensuring real-time insights and actionable outputs.
- **Performance Optimization:** Continuous evaluation, validation, and refinement of models to maintain accuracy and adapt to evolving business conditions.
- **Scalable Architecture:** Solutions designed to grow with the client's operations, supporting expansion without the need for costly redevelopment.

Through these services, JL Data Dynamics will help U.S. companies transform raw data into strategic assets, reduce risk exposure, and improve operational performance in a measurable, sustainable way.

2. Data Infrastructure and Governance Services

Data is one of the most valuable assets for modern organizations, but its full potential can only be realized when it is properly structured, governed, and accessible. Reliable data infrastructure and governance enable businesses to make faster, more accurate decisions, reduce operational risks, and comply with increasingly strict regulatory standards. Many companies, however, lack the foundational systems needed to manage data effectively.

A large number of U.S. companies, especially small and mid-sized enterprises struggle with weak or outdated data infrastructure:

- **Fragmented and inconsistent data:** Information often lives in multiple disconnected systems, making it difficult to ensure accuracy and reliability.
- **Lack of governance policies:** Without clear rules for data usage, access, and quality, organizations face compliance risks and operational inefficiencies.
- **Inefficient reporting processes:** Manual reporting and analysis lead to delays, higher costs, and limited visibility into key performance indicators.

- **Compliance and security gaps:** Poor data management increases exposure to regulatory penalties, security breaches, and reputational damage.

The Solution

JL Data Dynamics will deliver robust data infrastructure and governance solutions designed to give companies control, visibility, and trust over their data. The company will provide:

- **Centralized Statistical Modeling Analysture:** Design and implementation of secure, scalable, and centralized data environments to unify fragmented systems.
- **Data Governance Frameworks:** Establishment of clear data policies, access controls, and quality standards aligned with U.S. regulatory requirements.
- **Automated Reporting and Dashboards:** Deployment of dynamic, real-time reporting tools that support faster and more accurate decision-making.
- **Security and Compliance Integration:** Implementation of controls and processes to meet industry regulations, including financial and privacy standards.
- **Operational Efficiency:** Streamlining data processes to reduce costs, minimize manual errors, and increase organizational agility.

With these solutions, JL Data Dynamics will help businesses turn chaotic data environments into structured, compliant, and high-performing systems, enabling sustainable growth and competitive advantage.

3. Fraud Risk Analytics and Decision Intelligence



Fraud continues to be one of the most critical threats facing U.S. businesses, especially in sectors such as financial services, fintech, e-commerce, and digital platforms. As transactions become faster and more digital, fraud schemes have grown increasingly sophisticated. Effective fraud prevention today requires advanced data analytics, machine learning, and decision intelligence to identify risks in real time and minimize financial losses.

Many organizations lack the tools and expertise needed to manage fraud risk effectively:

- **Reactive rather than proactive detection:** Many companies rely on manual reviews or outdated systems that identify fraud only after losses occur.
- **Fragmented risk monitoring:** Inconsistent data sources and lack of integrated models make it difficult to detect complex fraud patterns.

- **High financial impact:** Fraud leads to direct financial losses, increased operational costs, reputational damage, and customer trust erosion.
- **Regulatory pressure:** Organizations face growing compliance requirements to protect consumers and maintain transparent risk management practices.

The Solution

JL Data Dynamics will deliver advanced fraud analytics solutions to help businesses detect, prevent, and respond to fraud with greater precision and speed. The company will offer:

- **Predictive Fraud Detection Models:** Development of advanced statistical and machine learning models capable of identifying fraudulent activities in real time.
- **Integrated Risk Monitoring:** Consolidation of multiple data sources into unified dashboards for continuous surveillance and fast decision-making.
- **Early Warning Systems:** Implementation of automated alerts and risk signals to minimize response time and reduce financial exposure.
- **Compliance and Reporting Tools:** Tools that help companies align with U.S. regulatory frameworks, ensuring transparency and accountability.
- **Strategic Decision Intelligence:** Support for fraud risk strategy through data-driven insights that guide resource allocation, customer verification, and fraud response protocols.

Through these solutions, JL Data Dynamics will help U.S. companies protect revenue, safeguard their reputation, and build stronger, data-driven fraud prevention programs that align with national priorities for financial security and consumer protection.

4. Data Science Training and Applied Statistical Education

The United States continues to face a critical shortage of skilled data science and quantitative analytics professionals, affecting industries that rely on reliable data models for security, innovation, and operational efficiency. Despite the growing adoption of AI and machine learning, many organizations struggle to recruit and develop talent capable of implementing advanced analytical methods and modern risk-modeling frameworks.

Across the economy, key challenges persist:

- **Talent shortage:** Demand for quantitative and data analytics specialists exceeds supply, limiting innovation capacity and increasing hiring costs.
- **Insufficient internal training capability:** Many companies lack structured programs to build statistical modeling and machine-learning skills internally.
- **Rapid technological evolution:** Organizations must keep pace with fast-advancing tools, including AI-augmented analytics platforms and emerging ML techniques.

- **Inefficient data use:** Without proper training, businesses underutilize available data and analytical tools, weakening competitive performance and risk-control mechanisms.

The Solution

JL Data Dynamics will support talent development by delivering **applied training** grounded in real-world modeling, risk analytics, and data science practice. Programs will be designed to help organizations build internal capability instead of relying exclusively on external hiring. Offerings include:

- **Custom Training Programs:** Tailored instruction in applied statistics, machine learning, fraud analytics, Bayesian modeling, and programming in R/Python for business environments.
- **Hands-On, Real-World Learning:** Interactive workshops using authentic datasets, risk scenarios, and supervised modeling exercises aligned to industry needs.
- **Corporate Upskilling & Workforce Enablement:** Structured learning paths that strengthen internal analytical capacity, enabling organizations to modernize operations and make data-driven decisions at scale.
- **AI-Supported Educational Content Review & Enhancement**: Integration of AI tools to support curriculum review, learning content refinement, and intelligent tutoring assistance ensuring materials stay current with emerging statistical techniques, model governance standards, and evolving regulatory expectations.
- **Compliance-Aware Training:** Instruction on the intersection of analytics, privacy, and model governance, supporting responsible data use and regulatory alignment.
- **Academic and Institutional Partnerships:** Collaboration with universities, training institutions, and research programs to expand industry access to specialized statistical and machine-learning education.

Through these initiatives, JL Data Dynamics will contribute to building a stronger U.S. analytical workforce, accelerating the adoption of reliable predictive systems, and strengthening national capacity in fraud prevention, credit risk modeling, and responsible AI development.

4.0 Industry Overview

JL Data Dynamics will operate at the intersection of **Data Science Consulting**, **IT Consulting**, and **Fraud and Risk Analytics**, three rapidly growing industries that are central to digital transformation across the U.S. economy. These industries are being shaped by the increasing use of data-driven decision-making, growing regulatory pressures, and the need for advanced analytical capabilities to enhance operational efficiency, security, and compliance.

Data Science and Analytics Consulting

This industry is driven by organizations' need to make data a strategic asset. Companies increasingly rely on predictive modeling, machine learning, and advanced analytics to reduce costs, optimize operations, and stay competitive. The growing complexity of datasets and rapid adoption of AI have created a strong demand for specialized consulting services capable of building scalable, secure, and intelligent analytical infrastructures.

- **Challenges:** The main challenges include the shortage of skilled talent, integration of advanced analytics into legacy systems, and the high cost of building internal data science teams.
- **Opportunities:** Organizations are investing heavily in predictive analytics, risk modeling, and data governance. Consulting firms that can deliver specialized and cost-effective solutions are well positioned to capture this market.

IT Consulting and Data Infrastructure

The IT consulting sector continues to expand as businesses modernize their data systems and adopt cloud-based solutions. The rise of data-driven strategies requires secure, well-structured data architectures and strong governance frameworks to meet operational and regulatory demands.

- **Challenges:** Rapid technological evolution requires continuous investment in new tools, skills, and cybersecurity measures.
- **Opportunities:** The demand for secure data infrastructures, scalable cloud solutions, and governance frameworks is growing across industries, creating significant opportunities for specialized providers.

Fraud and Risk Analytics

Fraud prevention and risk analytics are becoming critical priorities for financial institutions, fintech companies, and e-commerce platforms. The growth of digital payments and online transactions has led to a sharp increase in fraudulent activities, pushing organizations to invest in real-time fraud detection and decision intelligence solutions.

- **Challenges:** Fraud tactics are evolving quickly, requiring constant innovation and advanced analytical capabilities.
- **Opportunities:** There is increasing demand for predictive fraud models, integrated monitoring systems, and compliance solutions aligned with federal standards.

By combining advanced statistical modeling, data infrastructure and governance, fraud risk analytics, and workforce development through data science training, JL Data Dynamics is strategically positioned to serve industries facing complex operational, regulatory, and security challenges. The company's multidisciplinary approach allows it to deliver solutions that

strengthen resilience, support compliance, and drive measurable business outcomes across multiple sectors.

4.1 Industry Analysis

JL Data Dynamics will operate within the rapidly growing **IT Consulting**, **Data Science and Analytics**, and **Fraud Detection and Risk Management** industries, three sectors that are fundamental to the digital transformation of the U.S. economy. These industries are experiencing significant expansion driven by rising investments in cloud infrastructure, data analytics, cybersecurity, regulatory compliance, and workforce upskilling.

IT Consulting and Data Infrastructure

The U.S. IT consulting industry is projected to reach **$691 billion in revenue by 2028**, growing at a steady CAGR of approximately **5.6%** over the next five years.[10] This growth is fueled by strong demand for system integration, cloud adoption, and digital modernization as businesses seek to enhance operational efficiency. Companies are increasingly investing in modern IT infrastructures to support data-driven decision-making and automation.

- **Key Drivers:** Digital transformation initiatives, regulatory compliance, and AI integration into business processes.
- **Challenges:** Rapid technology shifts require ongoing adaptation, skilled talent, and secure infrastructure.
- **Opportunities:** Rising demand for IT consulting in small and medium-sized enterprises (SMEs), cloud migration, and governance frameworks.

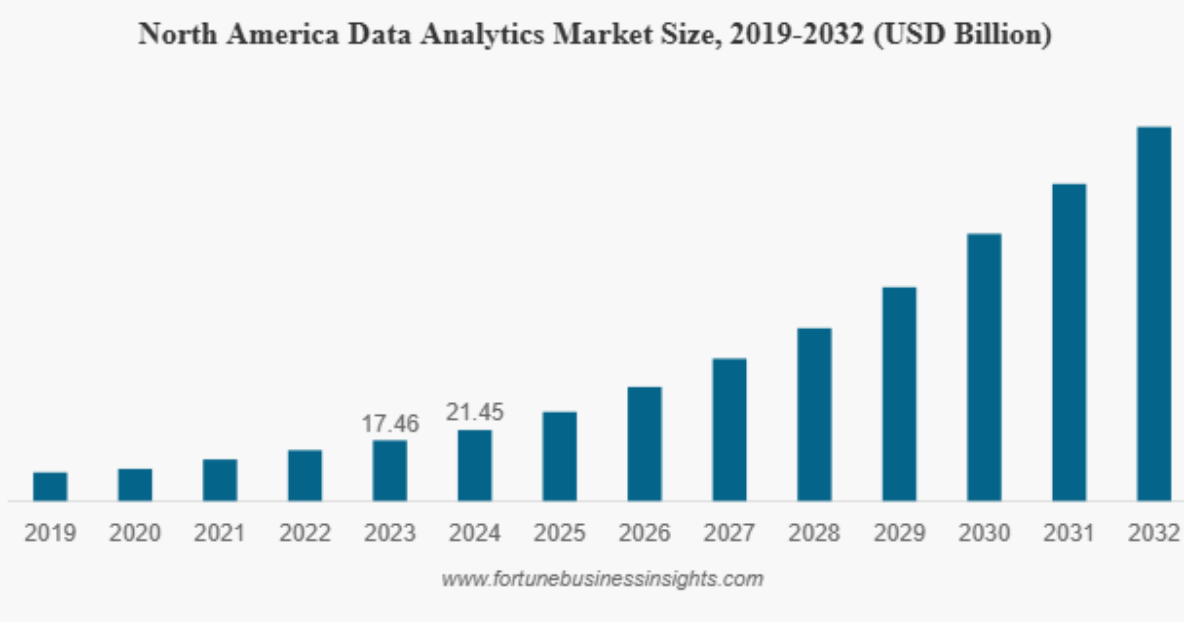
Data Science and Analytics Consulting

The U.S. data analytics market is projected to surpass **$300 billion globally by 2030**, with the U.S. maintaining the largest market share. Businesses are increasingly turning to predictive modeling and machine learning to optimize operations, forecast trends, and identify risks.[11] However, a shortage of qualified professionals has created strong demand for specialized consulting firms.

- **Key Drivers:** Expanding use of AI, increasing data complexity, and the strategic need for real-time decision intelligence.
- **Challenges:** Talent scarcity, integration with legacy systems, and cost of in-house development.

[10] https://my.ibisworld.com/us/en/industry/54151/performance#performance_outlook
[11] https://www.fortunebusinessinsights.com/data-analytics-market-108882

- **Opportunities:** Outsourced modeling solutions, automated analytics pipelines, and data governance services.



Fraud Detection and Risk Analytics

The global fraud detection and prevention market is expected to grow from **$30.6 billion in 2024 to $63.5 billion by 2029**, with North America representing the largest share. U.S. financial institutions, fintech companies, and e-commerce platforms face increasing fraud attempts, requiring predictive tools and decision intelligence systems.[12]

- **Key Drivers:** Rising digital transactions, regulatory scrutiny, and evolving fraud schemes.
- **Challenges:** Advanced, fast-changing fraud techniques and high response time.
- **Opportunities:** Predictive fraud detection models, real-time monitoring, and compliance automation.

Data Science Workforce Development

The shortage of skilled data professionals is another major driver. The U.S. faces a **shortfall of over 522,000 cybersecurity and data-related roles** (U.S. Bureau of Labor Statistics, 2024), creating strong demand for specialized training and workforce development services. Organizations increasingly seek external partners to train existing staff in data science, AI, machine learning, and governance practices.

[12] https://www.marketresearch.com/Global-Industry-Analysts-v1039/Fraud-Detection-Prevention-42594467/

- **Key Drivers:** National talent gap, technological evolution, and demand for in-house data capabilities.
- **Opportunities:** Corporate training programs, academic partnerships, and custom upskilling solutions.

Industry Outlook

The convergence of these industries creates a strong foundation for JL Data Dynamics to grow and scale. Rising investments in **AI**, **fraud prevention**, **data governance**, and **training** present strategic opportunities to deliver integrated solutions that address real market gaps. As the U.S. economy becomes increasingly data-driven, companies that provide advanced analytical services and support regulatory compliance will play a central role in shaping business resilience and innovation.

4.2 Major Market Segmentation

JL Data Dynamics will operate across multiple sectors where data plays a critical role in operational efficiency, regulatory compliance, risk management, and fraud prevention. The company's services are relevant to industries that rely on data analytics, secure infrastructure, and intelligent decision-making to maintain competitiveness. The following are the major market segments expected to drive demand for JL Data Dynamics' services:

1. Financial Services

Financial institutions, including banks, insurance companies, credit unions, payment processors, and fintech firms, represent one of the largest markets for data science and fraud risk analytics. This sector requires advanced statistical modeling to support credit risk scoring, fraud detection, and regulatory compliance.

- **Key Drivers:** High transaction volumes, fraud prevention requirements, regulatory pressure, and the integration of AI in financial operations.
- **Solutions Delivered:** Predictive fraud models, real-time risk scoring, secure data pipelines, and governance frameworks to meet financial compliance standards.

2. Government and Public Sector

Federal, state, and local agencies are increasingly reliant on data-driven strategies for public services, national security, health programs, and critical infrastructure management. These entities often face talent gaps in data science, security, and risk analytics.

- **Key Drivers:** Cybersecurity mandates, digital transformation of public services, and compliance with federal standards such as Executive Order 14028 and the National Cybersecurity Strategy.

- **Solutions Delivered:** Data governance systems, secure infrastructure modernization, fraud analytics for benefits programs, and workforce training programs to strengthen internal capabilities.

3. Healthcare and Life Sciences

The healthcare sector generates large volumes of sensitive patient data and requires advanced analytics for operational decision-making, fraud detection, and regulatory compliance. With the expansion of electronic health records (EHR) and telemedicine, healthcare providers are under pressure to ensure both data integrity and security.

- **Key Drivers:** HIPAA compliance, fraud prevention in claims processing, predictive analytics for care delivery, and secure data infrastructure needs.
- **Solutions Delivered:** Advanced modeling for fraud and risk detection, secure data governance systems, real-time data integration solutions, and analytics training for internal teams.

4. Technology and Telecommunications

Tech and telecom companies are at the forefront of innovation but are also prime targets for fraud, data breaches, and operational inefficiencies caused by rapid data growth. These firms require secure and scalable data infrastructures to support product development, AI integration, and compliance with evolving digital regulations.

- **Key Drivers:** Growth of SaaS and cloud platforms, secure software supply chain requirements, and the need for data governance frameworks.
- **Solutions Delivered:** Predictive analytics pipelines, infrastructure security consulting, fraud risk models, and compliance support aligned with federal standards.

5. Retail and E-commerce

Retailers and e-commerce platforms face increasing threats from payment fraud, data breaches, and operational disruptions. They depend on predictive analytics to optimize pricing, inventory, and fraud prevention in high-transaction environments.

- **Key Drivers:** Expansion of online commerce, digital payments, and regulatory requirements related to consumer data protection.
- **Solutions Delivered:** Fraud detection models, behavioral risk analytics, secure transaction infrastructure, and real-time reporting dashboards.

6. Education and Workforce Development

Colleges, universities, and professional training organizations are key markets for data science education and workforce development. These institutions are under pressure to equip students and professionals with skills in AI, data analytics, and risk intelligence.

- **Key Drivers:** National talent shortage in cybersecurity and data science, increasing demand for applied statistical education, and expansion of academic-industry partnerships.
- **Solutions Delivered:** Practical data science training programs, workshops in statistical modeling, and applied analytics courses aligned with industry needs.

7. Other Industries (Cross-Sector Applications)

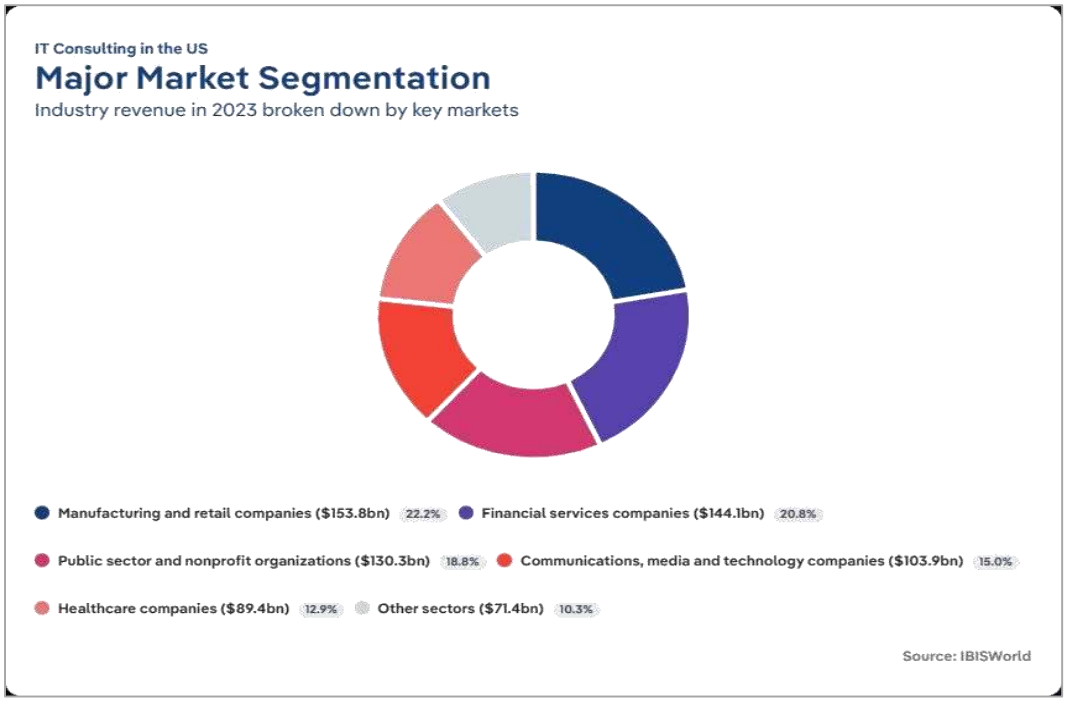
Additional sectors, including energy, manufacturing, logistics, professional services, and utilities are increasingly adopting data-driven solutions to improve efficiency, reduce risk, and comply with regulations.

- **Key Drivers:** Industrial digitalization, ESG reporting, fraud prevention, and infrastructure modernization.
- **Solutions Delivered:** Predictive modeling for operational optimization, data infrastructure design, fraud analytics, and training services to strengthen internal capabilities.

Market Outlook

Across these sectors, the demand for advanced analytics, data infrastructure modernization, fraud detection, and workforce development is expected to grow significantly. By targeting both **highly regulated sectors** (finance, healthcare, government) and **high-growth industries** (technology, retail, education), JL Data Dynamics is positioned to capture a broad share of the market. This diversified client base provides a stable foundation for long-term revenue growth and national impact.[13]

[13] https://my.ibisworld.com/us/en/industry/54151/products-and-markets



4.3 Business Location

JL Data Dynamics will be headquartered in **Raleigh, North Carolina**, a strategic location that offers significant advantages for technology-driven consulting firms operating in the fields of data science, fraud risk analytics, IT consulting, and digital infrastructure modernization. Raleigh is part of the **Research Triangle**, one of the fastest-growing technology and innovation corridors in the United States, alongside Durham and Chapel Hill. This region is recognized nationally for its high concentration of tech companies, robust talent pool, and strong government and university partnerships, making it an ideal environment for JL Data Dynamics' operations and expansion strategy.[14]

A Leading Tech and Analytics Hub

The Research Triangle region is home to over 7,000 technology companies, including leaders in cloud computing, cybersecurity, analytics, and software development.[15] According to U.S. Bureau of Labor Statistics, North Carolina has seen technology sector employment grow by more than 25% in the past five years, outpacing the national average. Raleigh alone is projected to continue expanding its tech workforce as companies increasingly invest in AI, machine learning, and advanced analytics.[16]

[14] https://www.cbre.com/press-releases/raleigh-durham-improves-rank-among-north-american-tech-markets-in-cbres-annual
[15] https://www.nctriangleconnection.com/2024/02/a-list-of-tech-companies-in-the-triangle-area-north-carolina/
[16] https://www.nctech.org/resources/2024-Key-Findings.pdf

Access to Top Talent and Academic Partnerships

Raleigh benefits from its proximity to world-class universities such as Duke University, University of North Carolina at Chapel Hill, and North Carolina State University, all of which offer leading programs in data science, engineering, computer science, and business. This academic ecosystem provides a steady pipeline of highly skilled professionals and opportunities for collaborative R&D, internship programs, and applied workforce training directly supporting JL Data Dynamics' service areas, especially in data science education and talent development.

Thriving Market and Business Climate

Raleigh has been consistently ranked among the top U.S. cities for business growth and technology investment. The state of North Carolina offers competitive corporate tax rates (2.5%, one of the lowest in the nation), strong infrastructure, and pro-business policies that attract startups and established firms alike. According to North Carolina Department of Commerce, the IT and data analytics sector contributes over $38 billion annually to the state's economy.[17] This favorable environment allows JL Data Dynamics to grow in a region that encourages innovation, supports digital transformation initiatives, and prioritizes workforce development.

Strategic Connectivity

The company's Raleigh location provides excellent connectivity to major economic centers on the East Coast. Raleigh-Durham International Airport offers direct access to key U.S. and international markets, making it easier to serve federal clients, collaborate with private sector partners, and expand operations nationally.

In summary, Raleigh, NC provides JL Data Dynamics with a high-growth market, access to skilled talent, proximity to research and innovation hubs, and a cost-efficient business environment. These factors position the company to scale effectively, strengthen its national presence, and contribute to the region's growing reputation as a national leader in data science, IT consulting, and advanced analytics.

5.0 Strategy and Implementation

The Strategy and Implementation Plan defines how JL Data Dynamics will establish its market position, attract and retain clients, and achieve sustainable growth within the U.S. data science and cybersecurity consulting industry. The company's strategy emphasizes operational excellence, digital visibility, relationship building, and thought leadership to position itself as a trusted partner for government agencies, regulated industries, and private enterprises.

5.1 Strategic Framework

[17] https://widcenter.org/wp-content/uploads/Reports/2025-First-in-Talent-Annual-Update-Final_forARC_NC.pdf

JL Data Dynamics will implement a structured strategic framework composed of the following elements:

1. **SWOT Analysis:** A comprehensive Strengths, Weaknesses, Opportunities, and Threats analysis will be conducted to identify the company's competitive advantages, market gaps, and external risks. This assessment will guide strategic decision-making, ensuring JL Data Dynamics leverages its technical expertise in data science, fraud analytics, and secure infrastructure to build a strong and differentiated market position.
2. **Corporate Website and Online Presence:** The company's website will serve as its primary digital hub, providing clear and compelling information about services, solutions, expertise, and case studies. The site will be optimized for search visibility (SEO) and integrated with lead-generation tools to support client acquisition and business development.
3. **Digital Marketing Strategy:** JL Data Dynamics will deploy a targeted digital marketing strategy to increase visibility and attract qualified leads. This strategy will include:
    - Search engine optimization (SEO) to reach clients seeking compliance, data science, and cybersecurity solutions.
    - Email marketing campaigns to build client relationships and promote service offerings.
    - Content marketing focused on thought leadership in data security, fraud analytics, and regulatory compliance.
    - Pay-per-click (PPC) advertising and remarketing to drive qualified traffic and conversions.
4. **Social Media Engagement:** The company will maintain an active presence on LinkedIn, X (Twitter), Facebook, and Instagram to build brand awareness and engage with target audiences. Content will highlight service offerings, industry insights, educational resources, and company achievements, reinforcing JL Data Dynamics as an authority in its field.
5. **Industry Events and Trade Shows:** JL Data Dynamics will participate in national and regional trade shows, cybersecurity summits, and data science conferences to expand its network, gain visibility, and remain informed about emerging technologies and regulatory trends. These events will support lead generation, partnership development, and strategic positioning in the marketplace.
6. **Referral and Partnership Programs:** The company will actively develop referral channels by maintaining high client satisfaction levels and implementing structured referral incentives. Strategic partnerships with law firms, compliance consultancies, and technology integrators will also be pursued to strengthen its business development pipeline and accelerate growth.

Strategic Execution and Leadership

The successful execution of this strategy will be guided by the leadership of Mr. José Evandeilton Lopes, leveraging his deep expertise in data science, fraud risk analytics, and advanced statistical modeling. The company will focus on measurable performance indicators, including lead generation, client acquisition, revenue growth, and retention rates.

Sales Strategy and Forecast

The company's sales strategy (Section 5.3) will detail how JL Data Dynamics will identify, approach, and convert target clients across its priority industries, financial services, healthcare, government, and technology. It will include structured prospecting, solution-based selling, and retention strategies to maximize lifetime client value.

Growth and Revenue Projections

Section 5.4 will outline the company's sales forecast, projecting steady revenue growth over its first five years of operation, supported by targeted marketing efforts, expanding client relationships, and service scalability.

5.1 Swot Analysis

A SWOT analysis is a strategic planning tool that helps businesses identify their internal strengths and weaknesses, as well as external opportunities and threats. By analyzing these factors, JL Data Dynamics can develop effective strategies to leverage its strengths and opportunities while mitigating risks and addressing weaknesses.

5.1.1 Strengths

- **Highly Specialized Service Portfolio** – Strong focus on advanced statistical modeling, data infrastructure, fraud risk analytics, and data science education, meeting critical national priorities in cybersecurity and data integrity.
- **Technical Expertise and Leadership** – Led by Mr. José Evandeilton Lopes, a senior data scientist with extensive academic and industry experience in statistical modeling and risk analysis.
- **Alignment with Federal Initiatives** – Services directly support compliance with U.S. cybersecurity mandates such as Cybersecurity and Infrastructure Security Agency initiatives and Executive Orders on software security and supply chain integrity.
- **Strong Industry Demand** – Positioned in high-growth sectors (cybersecurity, fraud prevention, and AI-driven analytics) with consistent, long-term demand.
- **Scalable Service Delivery Model** – Consulting structure and technology stack designed for national expansion with minimal infrastructure overhead.

- **Strategic Location** – Headquarters in Raleigh, NC, part of the Research Triangle, a major tech and analytics hub with access to top talent and innovation ecosystems.
- **Multidisciplinary Team Structure** – Diverse planned workforce, including data scientists, data engineers, fraud analytics experts, and trainers, enabling end-to-end solution delivery.
- **Reputation and Network Development** – Early strategic positioning to build partnerships with law firms, technology providers, and regulated industry leaders.

5.1.2 Weaknesses

- **New Market Entrant** – As a startup, the company has limited brand recognition and market penetration compared to established consulting firms.
- **Initial Resource Constraints** – Limited initial capital and operational resources may restrict the speed of early scaling.
- **High Dependence on Specialized Talent** – Recruitment and retention of skilled professionals may pose challenges in a competitive labor market.

5.1.3 Opportunities

- **Rising Federal Cybersecurity Mandates** – Expansion of requirements like SBOM and SSDA compliance is driving strong demand for specialized consulting services.
- **Workforce Development Gap** – Over 522,000 unfilled cybersecurity jobs in the U.S. present opportunities for training and education services.
- **Digital Transformation Boom** – Increasing cloud migration and modernization efforts create demand for secure infrastructure and analytics solutions.
- **Growing Fraud Threat Landscape** – Financial institutions and fintech companies are seeking advanced fraud detection and decision intelligence systems.
- **Government and Defense Sector Investments** – Increased spending on cybersecurity and critical infrastructure protection opens doors for federal contracting.
- **Expansion of Data Governance Regulations** – Heightened compliance requirements across healthcare, finance, and critical infrastructure create sustained demand.
- **Regional Economic Growth** – Raleigh's Research Triangle is attracting tech investment and startups, creating potential partnerships and local client acquisition opportunities.
- **Strategic Partnerships** – Opportunities to collaborate with universities, incubators, and private firms to co-develop solutions and workforce initiatives.

5.1.4 Threats

- **Rapid Technological Evolution** – Continuous innovation in AI, cybersecurity, and analytics may require ongoing investment in R&D and talent training.

- **Regulatory Uncertainty and Policy Shifts** – Changes in federal or state regulations may impact compliance requirements and business models.

5.2 Website and Digital Marketing

A comprehensive digital marketing strategy will be essential for JL Data Dynamics to establish a strong online presence and engage effectively with its target audience. Below is a digital marketing strategy framework tailored for JL Data Dynamics' future growth.

1. **Website Optimization**
    - **User Experience (UX) Design**: JL Data Dynamics' website will be designed to be user-friendly, with intuitive navigation and a responsive design that adapts to various devices (desktop, tablet, mobile).
    - **Search Engine Optimization (SEO)**: JL Data Dynamics will implement on-page and off-page SEO practices, including keyword research, content optimization, meta tags, and building quality backlinks to improve search engine rankings.
    - **Speed and Performance**: The website will be optimized for loading speed and performance to enhance both user experience and SEO rankings.
    - **Content Strategy**: JL Data Dynamics will develop a content strategy that provides value to its audience, including blogs, case studies, white papers, and industry insights to position the company as a thought leader.
2. **Content Marketing**
    - **Educational Content**: JL Data Dynamics will create and distribute valuable, relevant, and consistent content to attract and retain a defined audience.
    - **Video Marketing**: Video content will be leveraged on platforms like YouTube, the company's website, and social media to engage users more dynamically.
    - **Infographics and Visual Content**: JL Data Dynamics will produce visually appealing content that simplifies complex information, making it easily shareable across social media platforms.
3. **Social Media Marketing**
    - **Platform Selection**: JL Data Dynamics will identify and focus on social media platforms where its target audience is most active, tailoring content to fit each platform's unique format and audience preferences.
    - **Engagement Strategy**: JL Data Dynamics will foster community engagement through regular posts, comments, and interactions and use social media for customer service and support.

- **Paid Advertising**: Paid social media advertising options will be utilized to target specific demographics, interests, and behaviors, increasing visibility and lead generation.

4. **Email Marketing**
    - **Email List Building**: JL Data Dynamics will grow its email list through website sign-ups, offering valuable resources in exchange for email addresses (e.g., free eBooks, webinars, discount codes).
    - **Segmentation and Personalization**: The email list will be segmented based on user behavior and preferences to send personalized and relevant email campaigns.
    - **Automation**: Email marketing automation tools will be used to send timely and relevant emails, nurturing leads through the sales funnel.
5. **Pay-Per-Click (PPC) Advertising**
    - **Google Ads**: JL Data Dynamics will utilize Google Ads for targeted advertising based on keywords, location, and other demographic factors.
    - **Retargeting**: Retargeting ads will be implemented to re-engage visitors who leave the website without converting.
6. **Analytics and Measurement**
    - **Google Analytics**: JL Data Dynamics will use Google Analytics to track website traffic, user behavior, and conversion metrics, regularly reviewing these metrics to inform and adjust its marketing strategy.
    - **Conversion Rate Optimization (CRO)**: JL Data Dynamics will continuously test and optimize website elements (e.g., call-to-action buttons, landing pages) to improve conversion rates.
7. **Influencer and Affiliate Marketing**
    - **Influencer Partnerships**: JL Data Dynamics will partner with influencers who align with its brand values to reach a broader audience.
    - **Affiliate Programs**: An affiliate marketing program will be developed to encourage others to refer customers to JL Data Dynamics in exchange for a commission.
8. **Online Reputation Management**
    - **Customer Reviews**: JL Data Dynamics will encourage satisfied customers to leave positive reviews on platforms relevant to its industry.

- **Monitor Brand Mentions**: Tools will be used to monitor mentions of JL Data Dynamics' brand online, allowing the company to respond appropriately to both positive and negative feedback.

This digital marketing strategy is designed to be adaptable, allowing JL Data Dynamics to tailor each component to its specific industry, target audience, and business goals. Success will rely on consistent execution, regular monitoring, and ongoing optimization to drive engagement, conversions, and customer loyalty.

5.3 Sales Strategy

A successful sales strategy will be essential for JL Data Dynamics to stimulate growth and navigate the competitive cybersecurity marketplace. The primary focus will be on attracting new customers and maintaining strong relationships with existing ones. This multi-faceted approach will include the following key elements:

1. **Understanding the Customer**: JL Data Dynamics will conduct comprehensive market research to understand the needs, preferences, and pain points of its target audience. This insight will be crucial in tailoring JL Data Dynamics' services to address these needs, thereby providing superior value to clients.
2. **Unique Selling Proposition (USP)**: JL Data Dynamics will craft a compelling Unique Selling Proposition that clearly communicates the distinct advantages of its cybersecurity offerings. This USP will highlight the specific benefits customers can expect, differentiating JL Data Dynamics from competitors.
3. **Relationship Building**: JL Data Dynamics will foster strong relationships with both existing and potential customers. Providing exceptional customer service and regular follow-ups will turn one-time clients into loyal customers, helping to ensure a steady revenue stream.
4. **Leverage Referrals**: JL Data Dynamics will encourage satisfied customers to refer its services to their networks. Since people are more likely to trust recommendations from friends or colleagues, this strategy will significantly enhance JL Data Dynamics' customer base.
5. **Digital Marketing**: JL Data Dynamics will utilize digital platforms for customer outreach and engagement. Social media, email newsletters, and JL Data Dynamics' website will be leveraged to share valuable content, engage with customers, and showcase the company's cybersecurity solutions.
6. **Sales Training**: JL Data Dynamics will invest in regular training for its sales team to ensure they have the skills and knowledge necessary to effectively communicate and sell JL Data Dynamics' services. Training will cover product knowledge, communication, persuasion skills, and customer relationship management.

7. **Performance Metrics**: JL Data Dynamics will implement a system to track and measure sales performance. Metrics such as conversion rate, customer acquisition cost, and customer lifetime value will be regularly analyzed, providing insights into the effectiveness of the sales strategy and guiding necessary adjustments.

In conclusion, a well-crafted and implemented sales strategy will serve as the cornerstone of JL Data Dynamics' success, driving customer acquisition, fostering loyalty, and securing a competitive edge in the IT consulting market.

5.4 Sales Forecast

JL Data Dynamics has developed a structured five-year sales forecast that reflects its market strategy, pricing structure, and anticipated expansion across its four specialized service lines. This projection is based on growing national demand for data science, fraud risk analytics, secure infrastructure, and advanced statistical modeling, all of which align with federal cybersecurity and data-governance initiatives.

Service-Specific Forecast

- **Advanced Statistical Modeling and Machine Learning Solutions:** Unit sales are expected to grow from 13 units in Year 1 to 61 units in Year 5. Revenue is projected to increase from $195,000 in Year 1 to $1,103,938 by Year 5, supported by an incremental rise in unit price from $15,000 to $18,232.59. This growth will be driven by heightened demand for AI-driven analytics, risk modeling, and decision-intelligence solutions across regulated industries.
- **Data Infrastructure and Governance Services:** Starting with 12 units in Year 1 and reaching 60 units by Year 5, this service line is projected to generate revenue growth from $150,000 to $912,086 over the forecast period. Unit prices will increase from $12,500 to $15,193.83, reflecting the growing importance of secure data architectures and compliance-ready infrastructure in both public and private sectors.
- **Fraud Risk Analytics and Decision Intelligence:** Sales are expected to expand from 10 units in Year 1 to 50 units in Year 5, driving revenue from $135,000 to $820,877. Unit prices will rise from $13,500 to $16,409.33 as organizations intensify investments in fraud prevention, real-time detection, and risk analytics capabilities.
- **Data Science Training and Applied Statistical Education:** Starting with 9 units in Year 1 and scaling up to 45 units in Year 5, revenue is projected to grow from $108,000 to $656,702. Unit prices will increase from $12,000 to $14,586.08, reflecting strong national workforce development needs and the growing cybersecurity skills gap.

Total Sales Growth

Total sales across all service lines are projected to increase from $588,000 in Year 1 to $3,493,602 in Year 5, driven by both higher unit volumes and strategic pricing adjustments. This trajectory reflects the company's scalable delivery model and the expanding demand for data-driven, compliance-aligned solutions nationwide.

Direct Costs Forecast

- **Advanced Statistical Modeling and Machine Learning Solutions**: Direct costs are expected to grow from $15,600 in Year 1 to $88,315 in Year 5.
- **Data Infrastructure and Governance Services**: Direct costs will increase from $12,000 to $72,967 over the same period.
- **Fraud Risk Analytics and Decision Intelligence**: Direct costs will rise from $10,800 in Year 1 to $65,670 in Year 5.
- **Data Science Training and Applied Statistical Education**: Direct costs will grow from $8,640 in Year 1 to $52,536 in Year 5.

Total Direct Costs are projected to increase from $47,040 in Year 1 to $279,488 in Year 5, directly supporting service delivery, talent, infrastructure, and operational scalability.

Strategic Outlook

This sales forecast positions JL Data Dynamics for sustained growth and profitability. The company's diversified service portfolio, spanning advanced analytics, data infrastructure, fraud intelligence, and workforce development, ensures resilience against market fluctuations and alignment with long-term federal cybersecurity and data-governance priorities. This structured financial plan supports scalable operations, robust revenue generation, and high-value impact across the company's national client base.

5.4.1 How Sales Were Calculated

JL Data Dynamics' sales forecast has been meticulously calculated to outline a realistic and achievable growth trajectory over the next five years. Several key factors contribute to this projection:

Strategic Hiring

JL Data Dynamics plans to hire a Sales Representative for the first month of operations (as detailed in the Personnel Plan in the APPENDIX). This role will be pivotal to the company's growth, with the representative responsible for identifying new market opportunities, developing strategic partnerships, and executing target marketing campaigns to attract and

retain clients. This strategic hire is expected to significantly drive business growth and enhance JL Data Dynamics' market presence.

Marketing Investment

In addition to strategic hiring, JL Data Dynamics has allocated substantial resources for marketing, as detailed in the startup cost and profit and loss tables. This investment will include expenditure on activities such as online advertising, content marketing, participation in industry conferences, and other promotional efforts. These initiatives are designed to build brand awareness, generate leads, and convert prospects into clients.

Service Projections

Sales projections for each service offering were developed based on thorough research and analysis. These projections consider the anticipated number of projects secured each year, starting with conservative estimates and scaling up as JL Data Dynamics establishes its reputation and client base. The unit sales for each service, Advanced Statistical Modeling and Machine Learning Solutions, Data Infrastructure and Governance Services, Fraud Risk Analytics and Decision Intelligence, and Data Science Training and Applied Statistical Education are based on industry averages and potential demand within the market.

Industry Research and Benchmarks

Extensive research was conducted to ensure accurate sales projections. This research included analyzing industry reports (e.g. Statista, IBISWorld, and Forbes), benchmarking similar companies, and evaluating market trends and technological advancements. Projections were cross-referenced with revenue ranges of comparable companies in the IT consulting sector to ensure alignment with industry realities.

Project-Based Approach

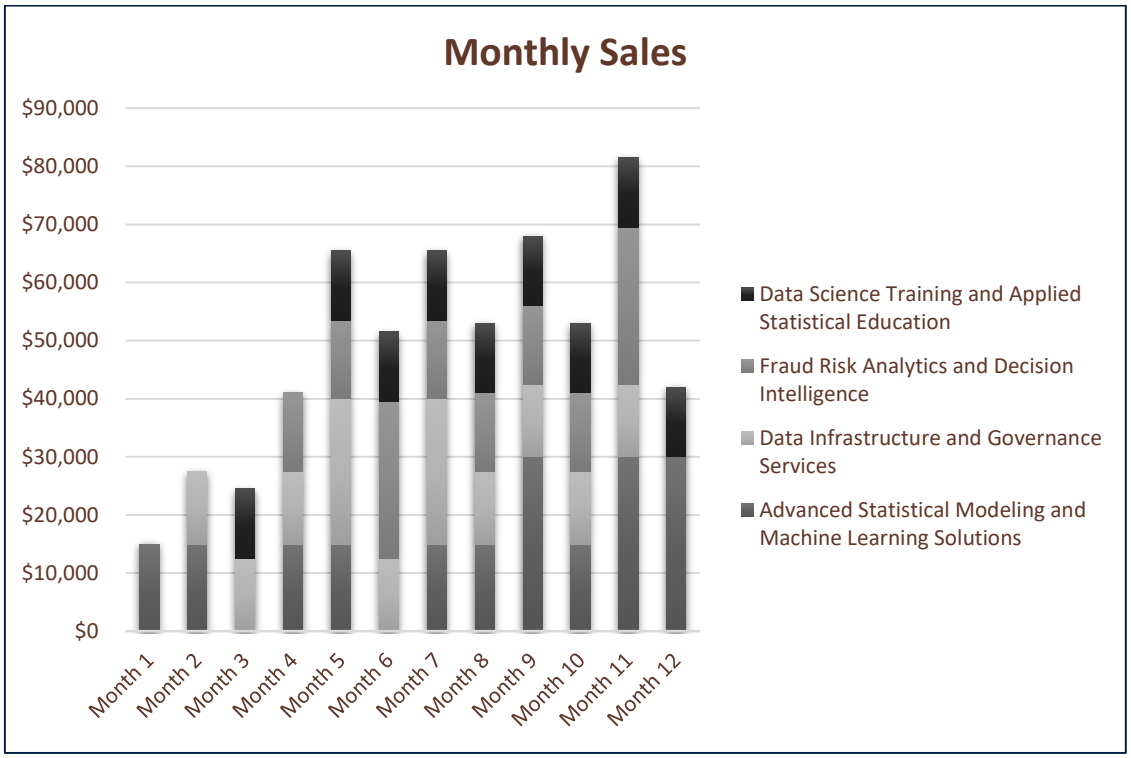
Sales projections for each service offering were calculated on a project-by-project basis. This method provides a more granular view of expected revenue and allows for adjustments based on market conditions and client demand. This detailed approach ensures that the projections are both realistic and attainable, providing a strong foundation for JL Data Dynamics' financial planning and growth strategy.

By integrating strategic hiring, marketing investment, comprehensive research, and a project-based approach, JL Data Dynamics is positioned to achieve its projected sales figures and sustain growth over the next five years.

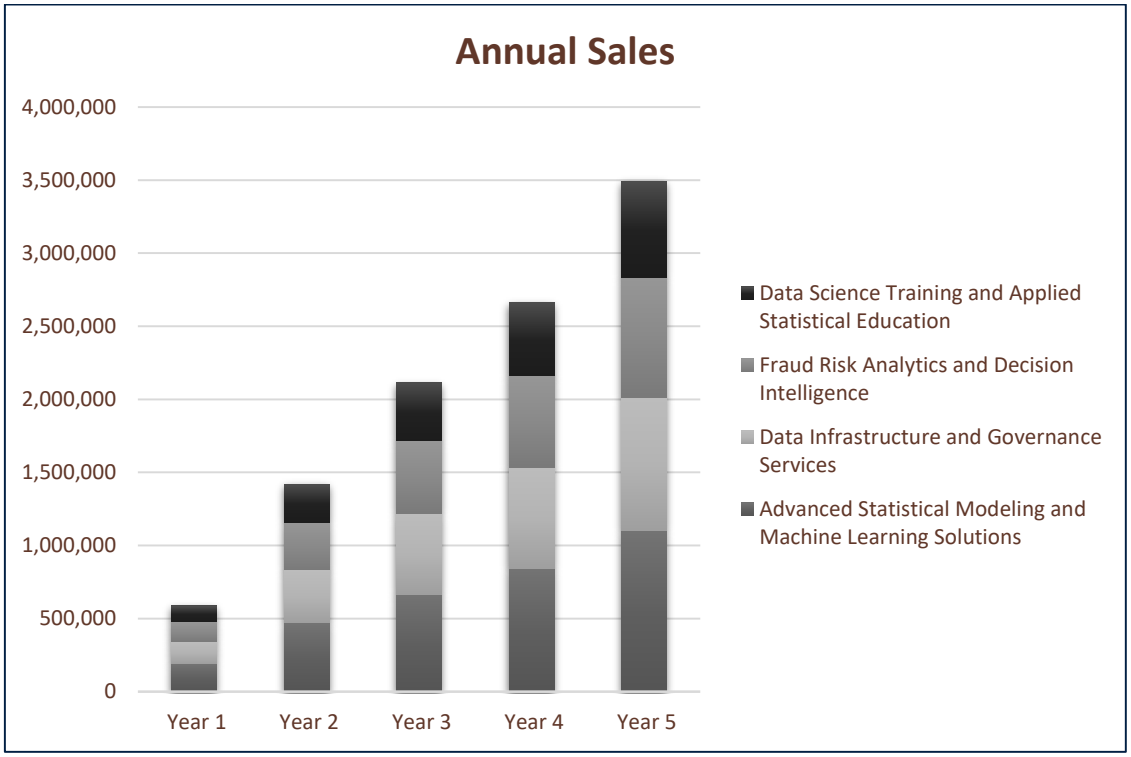
5.4.2 Annual Sales Forecast Table

Sales Forecast					
	Year 1	Year 2	Year 3	Year 4	Year 5
Unit Sales					
Advanced Statistical Modeling and Machine Learning Solutions	13	30	40	48	61
Data Infrastructure and Governance Services	12	28	40	48	60
Fraud Risk Analytics and Decision Intelligence	10	23	33	40	50
Data Science Training and Applied Statistical Education	9	21	30	36	45
Total Unit Sales	44	101	144	173	216
Unit Prices	Year 1	Year 2	Year 3	Year 4	Year 5
Advanced Statistical Modeling and Machine Learning Solutions	$15,000.00	$15,750.00	$16,537.50	$17,364.38	$18,232.59
Data Infrastructure and Governance Services	$12,500.00	$13,125.00	$13,781.25	$14,470.31	$15,193.83
Fraud Risk Analytics and Decision Intelligence	$13,500.00	$14,175.00	$14,883.75	$15,627.94	$16,409.33
Data Science Training and Applied Statistical Education	$12,000.00	$12,600.00	$13,230.00	$13,891.50	$14,586.08
Sales					
Advanced Statistical Modeling and Machine Learning Solutions	$195,000	$470,925	$667,536	$841,096	$1,103,938
Data Infrastructure and Governance Services	$150,000	$362,250	$551,526	$694,922	$912,086
Fraud Risk Analytics and Decision Intelligence	$135,000	$326,025	$496,373	$625,430	$820,877
Data Science Training and Applied Statistical Education	$108,000	$260,820	$397,098	$500,344	$656,702
Total Sales	$588,000	$1,420,020	$2,112,533	$2,661,792	$3,493,602
Direct Unit Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Advanced Statistical Modeling and Machine Learning Solutions	$1,200.00	$1,260.00	$1,323.00	$1,389.15	$1,458.61
Data Infrastructure and Governance Services	$1,000.00	$1,050.00	$1,102.50	$1,157.63	$1,215.51
Fraud Risk Analytics and Decision Intelligence	$1,080.00	$1,134.00	$1,190.70	$1,250.24	$1,312.75
Data Science Training and Applied Statistical Education	$960.00	$1,008.00	$1,058.40	$1,111.32	$1,166.89
Direct Cost of Sales					
Advanced Statistical Modeling and Machine Learning Solutions	$15,600	$37,674	$53,403	$67,288	$88,315
Data Infrastructure and Governance Services	$12,000	$28,980	$44,122	$55,594	$72,967
Fraud Risk Analytics and Decision Intelligence	$10,800	$26,082	$39,710	$50,034	$65,670
Data Science Training and Applied Statistical Education	$8,640	$20,866	$31,768	$40,028	$52,536
Subtotal Direct Cost of Sales	**$47,040**	**$113,602**	**$169,003**	**$212,943**	**$279,488**

5.4.3 Monthly Sales Chart



5.4.4 Annual Sales Chart



6.0 Management Structure

As previously mentioned, Mr. José Evandeilton Lopes will be the General Manager & Senior Data Scientist at JL Data Dynamics. The Personnel Plan shows that the company expects to make gradual investments in personnel in the first years of operation, and by the year 5, the company will have 21 employees, including Mr. José Evandeilton Lopes.

6.1 Staffing Requirements

Under the strategic leadership of Mr. José Evandeilton Lopes, JL Data Dynamics will build a highly skilled and specialized team capable of delivering advanced data science, fraud analytics, machine learning, and data infrastructure services. The company's five-year personnel plan reflects a structured approach to workforce expansion, ensuring operational excellence and sustained growth while aligning with market demand and national priorities in cybersecurity and analytics.

Personnel Plan Details

- **General Manager & Senior Data Scientist – Mr. José Evandeilton Lopes:** As the company's founder and strategic leader, Mr. Lopes will guide technical direction, business strategy, and client relations. His compensation begins at $153,000 in Year 1 and grows to $262,351 by Year 5, reflecting the company's scaling operations and revenue growth.
- **Lead Risk & Data Science Specialist:** Responsible for advanced analytics, model development, and oversight of data science initiatives. Starting with 1 position in Year 1 at $40,000, the team will expand to 2 positions by Year 3, reaching a total of $291,722 in Year 5.
- **Machine Learning Engineer:** Focused on deploying machine learning models, algorithm optimization, and decision-intelligence solutions. One engineer will be employed from the start, with salaries rising from $101,250 in Year 1 to $328,187 in Year 5 as the team expands to two members.
- **Data Engineer & Analytics Pipeline Specialist:** Tasked with building and maintaining secure, scalable data pipelines and infrastructure. Introduced in Year 2 at $119,700, this role will be essential for supporting service delivery and compliance, reaching $138,568 in Year 5.
- **Statistical Modeling Analyst:** Specializing in data architecture and governance frameworks, this role begins in Year 2 at $141,750. By Year 5, with the addition of a second architect, total compensation will reach $328,187, enabling robust infrastructure design and integration.
- **Senior Fraud & Credit Analytics Scientist:** Introduced in Year 3 with 1 hire, this position focuses on developing fraud detection systems, predictive analytics, and risk mitigation models. Compensation grows from $99,225 in Year 3 to $218,791 in Year 5, reflecting expanded capacity.

- **Applied Data Science Instructor:** Supporting the company's data science education services, this role is introduced in Year 2 at $88,200 and scales to 2 trainers by Year 3, reaching $204,205 by Year 5. Trainers will lead workforce development programs aligned with the national cybersecurity talent gap.
- **Project Manager:** Responsible for coordinating technical projects and ensuring on-time, on-budget delivery. One manager will join in Year 2 at $115,920, expanding to 2 positions by Year 4 with a combined payroll of $268,384 in Year 5.
- **Marketing and Communications Specialist:** Introduced in Year 3, this role will manage digital marketing strategies, branding, and client engagement. Salary starts at $82,026 and grows to $90,434 in Year 5.
- **Sales Representatives:** Sales efforts will begin in Year 1 with 1 representative at $72,000 and expand to 3 representatives by Year 5, with combined salaries reaching $262,549, supporting national client acquisition and expansion.
- **Administrative Manager:** This role supports internal operations, budgeting, and compliance. Starting at $30,000 in Year 1, compensation will grow to $72,930 in Year 5, reflecting expanded responsibilities as the company scales.
- **Customer Service Representatives:** Introduced in Year 3 to provide client support and service continuity, starting at $46,305, with two representatives by Year 5 earning $102,103 combined.

Workforce Growth Overview

This personnel structure ensures JL Data Dynamics builds a strategically balanced team, combining senior expertise with technical execution and commercial support. The hiring timeline is designed to scale capacity in line with revenue growth, allowing the company to meet expanding client demand, enter new markets, and sustain operational excellence.

6.1.1 How the Hiring Plan Was Calculated

JL Data Dynamics has structured its five-year hiring plan to ensure sustainable growth while maintaining operational efficiency, technical excellence, and service quality. The plan is closely aligned with the company's sales forecast, market expansion strategy, and service portfolio in advanced data science, fraud analytics, machine learning, and data infrastructure and governance.

Market Demand and Service Expansion

The hiring plan reflects the projected rise in demand for JL Data Dynamics' core services, including Advanced Statistical Modeling and Machine Learning Solutions, Data Infrastructure

and Governance Services, Fraud Risk Analytics and Decision Intelligence, and Data Science Training and Applied Statistical Education.

Industry forecasts and internal projections indicate steady growth across these areas, requiring a structured expansion of technical, operational, and commercial teams. The hiring plan ensures the company has the right personnel at the right time to support increasing project volume and service complexity.

Strategic Roles and Timing

Hiring is sequenced across five years to balance operational readiness with scalable growth:

- **Year 1 – Foundational Core Team:** The company will launch operations with five key professionals: the General Manager & Senior Data Scientist, Lead Risk & Data Science Specialist, Machine Learning Engineer, Sales Representative, and Administrative Manager. This team establishes the operational base and supports early-stage project delivery and client acquisition.
- **Year 2 – Strategic Expansion:** As service demand increases, JL Data Dynamics will add specialized technical and leadership roles, including Data Engineer & Analytics Pipeline Specialist, Statistical Modeling Analyst, Applied Data Science Instructor, and Project Manager. These positions will enhance delivery capacity and allow the company to manage more complex engagements.
- **Years 3 to 5 – Scalable Growth:** To meet accelerating client demand, the company will further expand with Senior Fraud & Credit Analytics Scientists, additional Applied Data Science Instructors, Customer Service Representatives, Marketing and Communications Specialists, and additional Sales Representatives. This phase strengthens both delivery capability and customer support functions, enabling the company to scale nationally.

Salary Benchmarks and Industry Standards

Salaries for each position were determined based on current U.S. industry benchmarks for data science, cybersecurity, and IT consulting roles. Planned annual increases reflect both market conditions and growing responsibilities as the company scales. For example:

- The **General Manager & Senior Data Scientist** starts at $153,000 in Year 1, reaching $262,351 by Year 5, aligning compensation with expanded leadership and operational responsibilities.
- Roles such as Lead Risk & Data Science Specialist and Machine Learning Engineer will see steady salary progression, ensuring competitive positioning in a talent-driven industry.
- Technical roles introduced in later years, including Statistical Modeling Analysts and Senior Fraud & Credit Analytics Scientists, will command higher compensation as they address specialized, high-value service demands.

Projected Service Demand and Role Scaling

The number of hires for each role corresponds directly to the projected volume of service delivery and client base expansion:

- **Lead Risk & Data Science Specialist:** Expands from **1 to 2** employees by Year 5 to support advanced modeling and analytics demand.
- **Machine Learning Engineer:** Grows from **1 to 2**, reflecting increased deployment of predictive models and automation.
- **Sales Representatives:** Increase from **1 to 3**, ensuring business development keeps pace with service capacity.
- **Applied Data Science Instructors:** Expand from **0 to 2**, supporting the company's education and workforce development offerings.
- **Customer Service Representatives:** Introduced in Year 3 and increased to **2** by Year 5 to ensure client satisfaction at scale.

Operational Efficiency and Scalability

JL Data Dynamics' hiring strategy is intentionally phased and scalable. Early hiring focuses on high-impact technical and commercial roles that drive revenue and service delivery. As the company grows, additional layers of operational, marketing, and support personnel are added to sustain service quality and client satisfaction without overextending resources.

In summary, this hiring plan is the result of a data-informed, strategically timed approach that aligns workforce growth with market demand, service capacity, and financial projections. By carefully balancing talent acquisition, cost efficiency, and service delivery capability, JL Data Dynamics will establish a strong operational foundation and position itself for sustained growth and national expansion in the data science and cybersecurity consulting market.

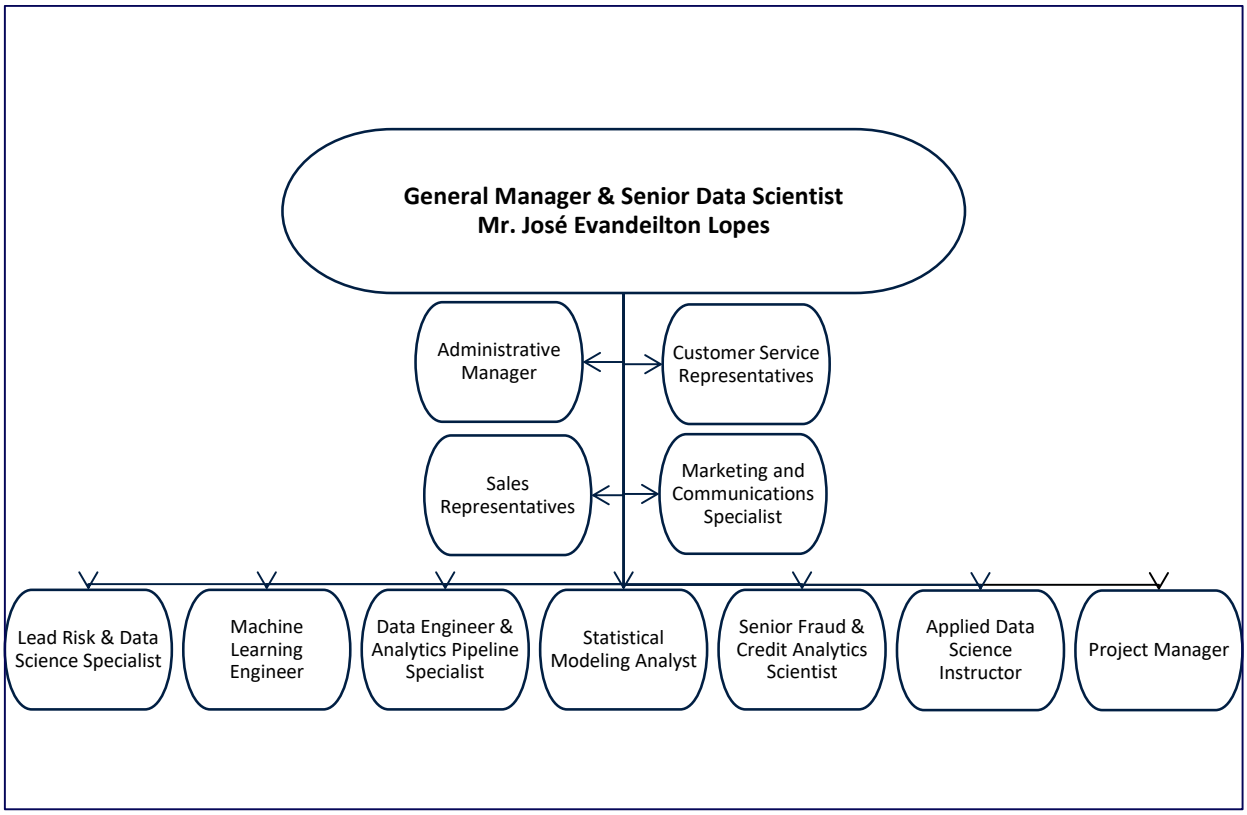
6.2 Annual Personnel Plan Table

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Senior Data Scientist - Mr. José Evandeilton Lopes	$153,000	$172,500	$198,375	$228,131	$262,351
Lead Risk & Data Science Specialist	$40,000	$126,000	$264,600	$277,830	$291,722
Machine Learning Engineer	$101,250	$141,750	$148,838	$156,279	$328,187
Data Engineer & Analytics Pipeline Specialist	$0	$119,700	$125,685	$131,969	$138,568
Statistical Modeling Analyst	$0	$141,750	$148,838	$156,279	$328,187
Senior Fraud & Credit Analytics Scientist	$0	$0	$99,225	$104,186	$218,791
Applied Data Science Instructor	$0	$88,200	$185,220	$194,481	$204,205
Project Manager	$0	$115,920	$121,716	$255,604	$268,384
Marketing and Communications Specialist	$0	$0	$82,026	$86,127	$90,434
Sales Representative	$72,000	$75,600	$79,380	$166,698	$262,549
Administrative Manager	$30,000	$63,000	$66,150	$69,458	$72,930
Customer Service Representative	$0	$0	$46,305	$97,241	$102,103
Total People	5	9	14	17	21
Total Payroll	**$396,250**	**$1,044,420**	**$1,566,357**	**$1,924,283**	**$2,568,409**

6.3 Five-Year Personnel Plan Table

Personnel Plan					
	Year 1	Year 2	Year 3	Year 4	Year 5
General Manager & Senior Data Scientist - Mr. José Evandeilton Lopes	1	1	1	1	1
Lead Risk & Data Science Specialist	1	1	2	2	2
Machine Learning Engineer	1	1	1	1	2
Data Engineer & Analytics Pipeline Specialist	0	1	1	1	1
Statistical Modeling Analyst	0	1	1	1	2
Senior Fraud & Credit Analytics Scientist	0	0	1	1	2
Applied Data Science Instructor	0	1	2	2	2
Project Manager	0	1	1	2	2
Marketing and Communications Specialist	0	0	1	1	1
Sales Representative	1	1	1	2	3
Administrative Manager	1	1	1	1	1
Customer Service Representative	0	0	1	2	2
Total People	**5**	**9**	**14**	**17**	**21**

6.4 Organizational Chart – Year 5



6.5 Duties and Responsibilities

General Manager & Senior Data Scientist – Mr. José Evandeilton Lopes

- Provide strategic leadership and oversee the company's overall operations and growth strategy.
- Lead the design and implementation of advanced statistical models and machine learning frameworks.
- Oversee financial planning, budgeting, and forecasting to ensure profitability and sustainability.
- Manage key client relationships, partnerships, and strategic collaborations.
- Supervise project execution to ensure technical quality, regulatory compliance, and timely delivery.
- Develop and implement data governance standards and methodologies aligned with national cybersecurity priorities.
- Direct the recruitment, development, and retention of a high-performing multidisciplinary team.
- Represent the company in industry forums, conferences, and regulatory discussions.

Lead Risk & Data Science Specialist

- Develops and validates predictive models for credit, fraud, and behavioral risk.
- Leads model performance monitoring, governance, and compliance documentation.
- Conducts advanced statistical research and Bayesian machine learning projects.
- Collaborates with cross-functional teams to translate analytical insights into business solutions.

Machine Learning Engineer

- Deploys and maintains machine learning pipelines for production environments.
- Automates scoring systems, monitoring tools, and model versioning workflows.
- Optimizes model inference, latency, and scalability for real-time applications.
- Implements MLOps practices and collaborates with data scientists on deployment strategy.

Data Engineer & Analytics Pipeline Specialist

- Builds and maintains analytical data pipelines to support modeling workflows.
- Creates and manages ABTs (Analytics Base Tables) and feature-store workflows.
- Ensures data quality, preprocessing, and integration with model environments.
- Implements automation and ETL processes to streamline ML operations.

Statistical Modeling Analyst

- Supports development, calibration, and documentation of statistical models.
- Assists in feature engineering, exploratory data analysis, and data curation.
- Conducts back-testing and performance evaluation of predictive models.
- Prepares reports, dashboards, and model support materials for stakeholders.

Senior Fraud & Credit Analytics Scientist

- Develops fraud detection algorithms and credit risk scoring frameworks.
- Performs threat intelligence analysis, anomaly detection, and pattern modeling.
- Designs model validation processes and risk-based decision rules.
- Works with compliance and product teams to strengthen financial-risk controls.

Applied Data Science Instructor

- Delivers training in statistics, R/Python programming, and machine learning.
- Designs course materials and case studies focused on fraud and risk modeling.
- Conducts hands-on workshops and professional development sessions.
- Evaluates learner progress and maintains curriculum aligned to industry needs.

Project Manager

- Coordinates delivery timelines, resources, and cross-functional project workflows.
- Manages communication between technical teams and client stakeholders.
- Tracks KPIs, documentation, and compliance milestones for model delivery.
- Mitigates risks and ensures high-quality, on-time delivery of analytical projects.

Marketing and Communications Specialist

- Develops content and brand strategy focused on data science and risk analytics.
- Manages digital channels, thought-leadership campaigns, and PR initiatives.
- Supports lead-generation and event participation within the tech and finance ecosystem.
- Ensures consistent messaging aligned with company mission and services.

Sales Representative

- Identifies and develops relationships with financial institutions and tech clients.
- Presents data-driven solutions, service offerings, and value propositions.
- Manages sales pipeline, outreach campaigns, and proposal preparation.
- Supports business development initiatives and revenue-growth strategy.

Administrative Manager

- Oversees accounting, budgeting, and vendor management processes.
- Manages operational compliance, HR support, and internal reporting.
- Coordinates contracts, billing cycles, and administrative workflows.
- Maintains corporate records and ensures efficient office operations.

Customer Service Representative

- Provides onboarding support and assists clients with inquiries and requests.
- Maintains communication channels and ensures timely service delivery updates.
- Collects client feedback to support product/service improvements.
- Supports documentation, reporting, and coordination with technical teams.

7.0 Financial Summary

The financial plan for JL Data Dynamics will be a critical analysis of the company's financial projections, including revenue, expenses, and overall financial performance. It will offer a comprehensive overview of the expected financial trajectory over a specific period of time and determine the company's financial feasibility. The plan will encompass essential aspects such as startup funding, profit and loss, cash flow, and balance sheet. The financial plan will play a crucial

role in determining the company's success and will help in making informed decisions to ensure that the company achieves its financial objectives.

7.1 Break-even Analysis

The Break-even Analysis is a critical financial metric for JL Data Dynamics, providing essential insights into when the company can expect its total revenues to match its total expenses. This analysis indicates that the company will reach its break-even point when monthly sales reach 3 units, resulting in revenue of $42,634. This break-even point is based on a few important assumptions:

1. **Average Revenue Per Unit:** The revenue generated from each unit sold is expected to be $13,363.64.
2. **Average Variable Cost Per Unit:** The average variable cost per unit is calculated to be $1,069.09.
3. **Monthly Fixed Costs:** The company is projected to incur monthly fixed costs of $39,223, which are anticipated to remain stable regardless of sales volume fluctuations.

Understanding the break-even point is crucial for guiding strategic decisions at JL Data Dynamics. It establishes a foundation for setting realistic sales targets, managing budgets effectively, and steering the company towards financial stability and profitability. Achieving this break-even point marks a significant milestone in the company's journey, transitioning from a startup phase absorbing losses to a growth phase where it begins to generate profits.

7.1.1 Break-even Analysis Chart

Break-even Analysis	
Monthly Units Break-even	3
Monthly Revenue Break-even	$42,634
Assumptions:	
Average Per-Unit Revenue	$13,363.64
Average Per-Unit Variable Cost	$1,069.09
Estimated Monthly Fixed Cost	**$39,223**

7.2 Profit and Loss Assumptions

JL Data Dynamics is positioned to establish a strong and sustainable financial foundation as it begins operations in Raleigh, North Carolina. Guided by the strategic leadership of Mr. José Evandeilton Lopes, the company’s financial plan prioritizes steady growth, controlled operational costs, and strategic reinvestment in talent and service capacity to meet increasing market demand.

Revenue and Gross Margin

Total sales are projected to increase from $588,000 in Year 1 to approximately $3,493,602 by Year 5, driven by growth in the company's four core service lines:

- Advanced Statistical Modeling and Machine Learning Solutions
- Data Infrastructure and Governance Services
- Fraud Risk Analytics and Decision Intelligence
- Data Science Training and Applied Statistical Education

Direct costs of sales will increase proportionally with project volume, rising from $47,040 in Year 1 to $279,488 in Year 5. JL Data Dynamics plans to maintain a gross margin of 92% throughout the five-year period, with gross profit expected to grow from $540,960 in Year 1 to $3,214,114 in Year 5.

Operating Expenses

Operating expenses reflect the company's commitment to scaling operations while maintaining financial discipline. Total operating expenses are projected to grow from $470,675 in Year 1 to $2,915,515 in Year 5, primarily driven by investments in:

- **Payroll and Payroll Taxes:** increasing from $435,875 in Year 1 to $2,825,250 by Year 5, as the team expands from 5 to 21 employees.
- **Rent and Utilities:** increasing to support office space expansion as service delivery grows.
- **Marketing and Promotion:** rising from $6,000 in Year 1 to $12,442 in Year 5, with a focus on digital campaigns, targeted industry outreach, and participation in strategic events.
- **Employee Training and Professional Services:** scaling in line with service demand to ensure workforce quality and compliance.

Profitability and Taxation

EBITDA is expected to grow steadily from $70,285 in Year 1 to $306,099 in Year 5, reflecting operational efficiency and disciplined cost control. After accounting for taxes, net profit is projected to increase from $51,308 in Year 1 to $217,977 in Year 5, maintaining healthy profit margins of 8.7% in Year 1 and stabilizing between 6% and 7% in later years as the company scales.

Taxes incurred are projected to grow from $18,977 in Year 1 to $80,622 in Year 5, reflecting JL Data Dynamics' contribution to local, state, and federal tax revenues.

Strategic Financial Outlook

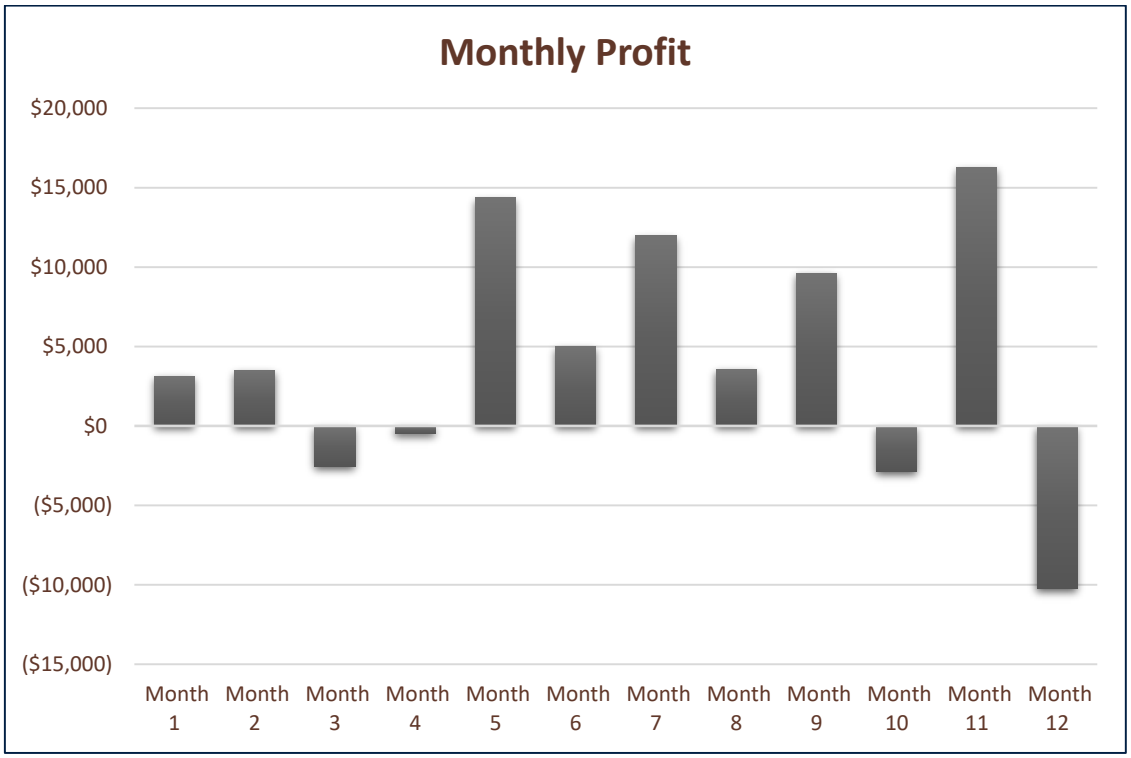
These financial assumptions are underpinned by JL Data Dynamics' scalable service model, strategic talent acquisition, and alignment with national priorities in data security, fraud prevention, and advanced analytics. The company's ability to maintain a high gross margin while expanding operations provides a strong financial base for reinvestment, innovation, and long-term stability.

Detailed financial schedules, including sales, cost of sales, payroll, and EBITDA projections, are provided in the financial appendix to illustrate JL Data Dynamics' clear growth trajectory and financial sustainability over its first five years of operation.

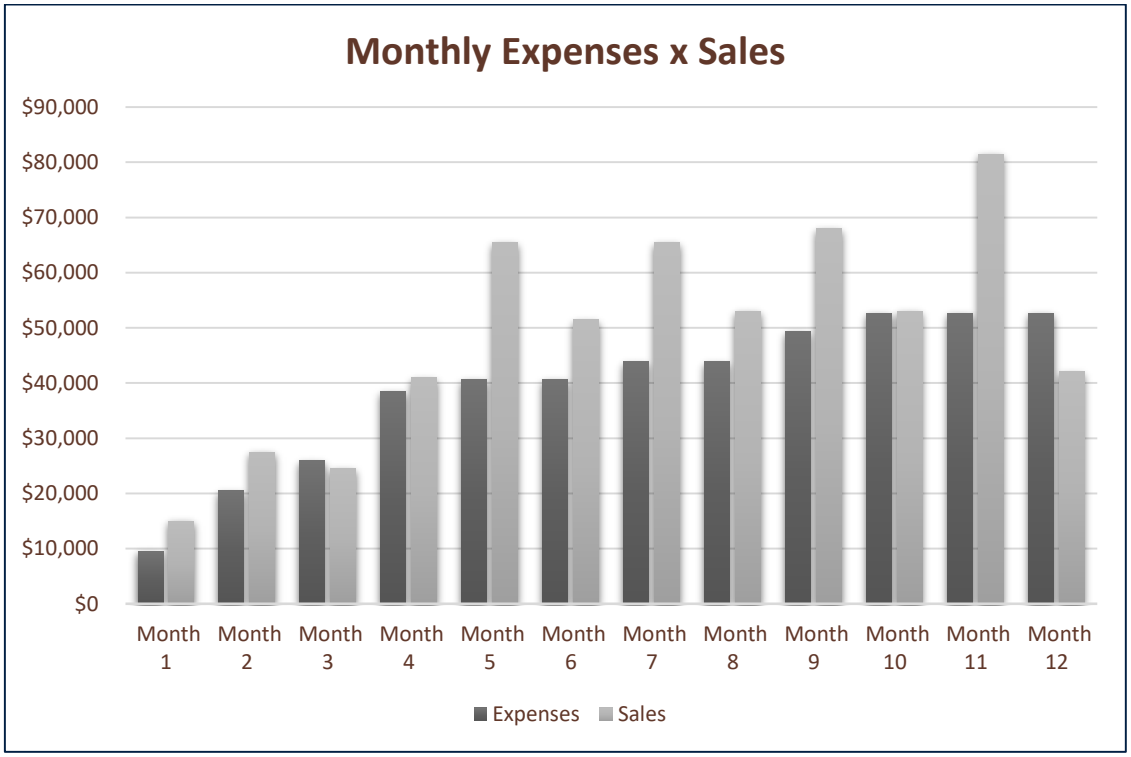
7.2.1 Annual Profit and Loss Table

Pro Forma Profit and Loss					
	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	$588,000	$1,420,020	$2,112,533	$2,661,792	$3,493,602
Direct Cost of Sales	$47,040	$113,602	$169,003	$212,943	$279,488
Other Costs of Sales	$0	$0	$0	$0	$0
Total Cost of Sales	$47,040	$113,602	$169,003	$212,943	$279,488
Gross Margin	$540,960	$1,306,418	$1,943,531	$2,448,849	$3,214,114
Gross Margin %	92.00%	92.00%	92.00%	92.00%	92.00%
Expenses					
Payroll	$396,250	$1,044,420	$1,566,357	$1,924,283	$2,568,409
Payroll Taxes	$39,625	$104,442	$156,636	$192,428	$256,841
Depreciation	$0	$3,000	$4,500	$6,000	$7,500
Rent	$21,600	$25,920	$31,104	$37,325	$44,790
Insurance	$2,400	$2,880	$3,456	$4,147	$4,977
Marketing/Promotion	$6,000	$7,200	$8,640	$10,368	$12,442
Utilities/Internet/Phone	$1,800	$2,160	$2,592	$3,110	$3,732
Employees Education	$0	$8,000	$9,600	$11,520	$13,824
Accountant	$3,000	$3,000	$3,000	$3,000	$3,000
Total Operating Expenses	$470,675	$1,201,022	$1,785,885	$2,192,182	$2,915,515
Profit Before Interest and Taxes	$70,285	$105,396	$157,646	$256,666	$298,599
EBITDA	$70,285	$108,396	$162,146	$262,666	$306,099
Interest Expense	$0	$0	$0	$0	$0
Taxes Incurred	$18,977	$28,457	$42,564	$69,300	$80,622
Net Profit	$51,308	$76,939	$115,082	$187,367	$217,977
Net Profit/Sales	**8.73%**	**5.42%**	**5.45%**	**7.04%**	**6.24%**

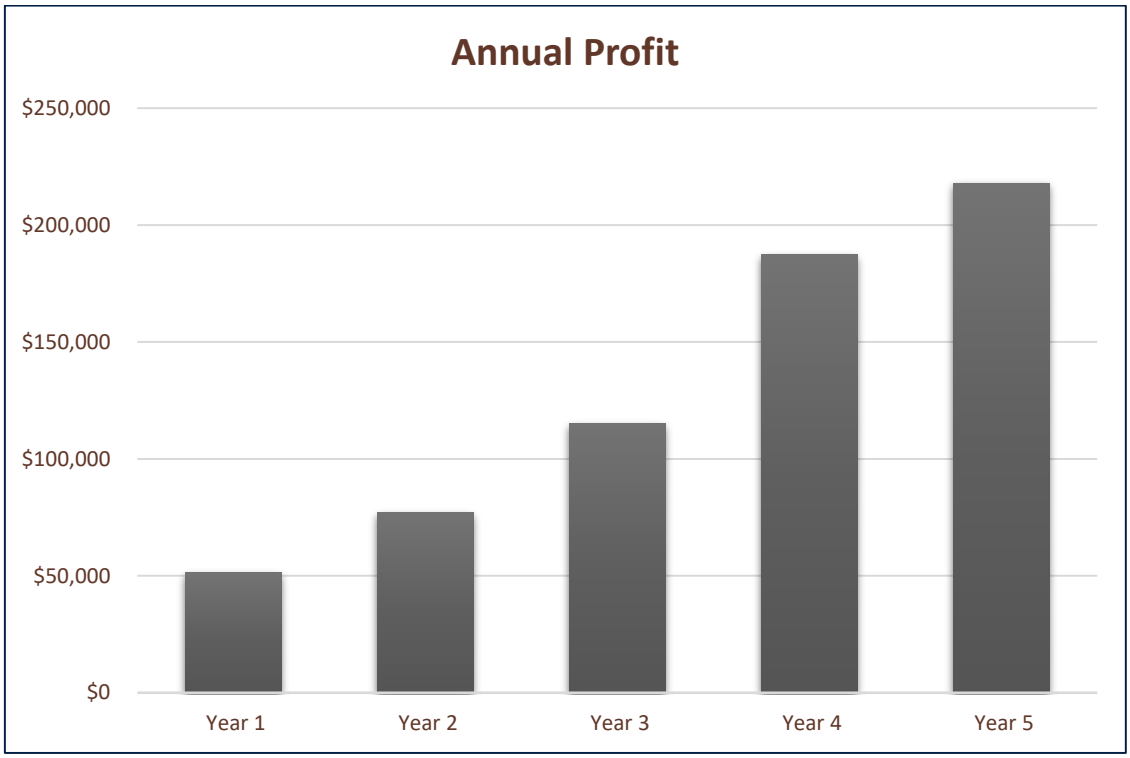
7.2.2 Monthly Profit Chart



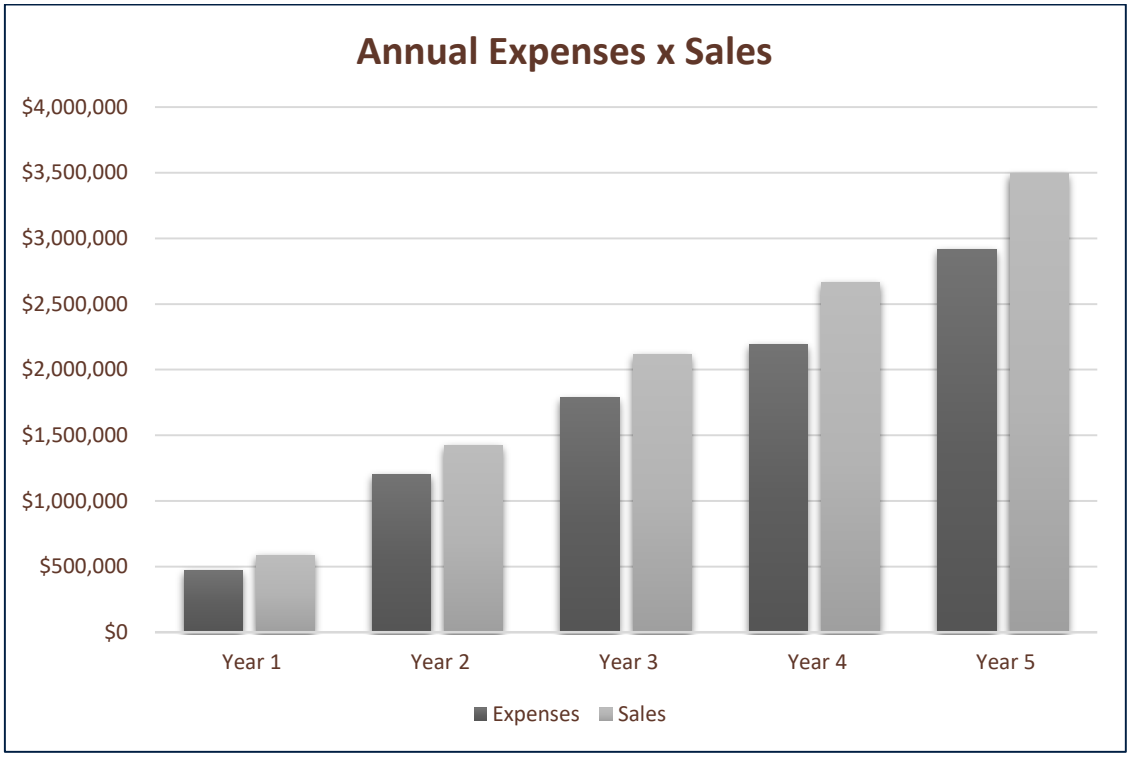
7.2.3 Monthly Expenses x Sales Chart



7.2.4 Annual Profit Chart



7.2.5 Annual Expenses x Sales Chart



7.3 Cash Flow Assumptions

JL Data Dynamics has developed a structured and conservative cash flow strategy to support its growth trajectory, maintain operational liquidity, and minimize reliance on external financing. The company's cash inflows are projected to come exclusively from its core operations, reflecting a sustainable business model built on recurring service revenues and strategic client acquisition.

Cash Inflows

Total cash received is projected to grow from $588,000 in Year 1 to $3,493,602 in Year 5. This revenue will be generated entirely through cash sales and collections on receivables associated with the company's four core services.

Cash Outflows

Operational expenditures represent the largest portion of cash outflows, increasing from $529,930 in Year 1 to $3,255,338 in Year 5. These outflows are driven by:

- Cash Spending (Payroll and related costs): rising from $396,250 in Year 1 to $2,568,409 in Year 5 as the team grows from 5 to 21 employees.
- Bill Payments: increasing from $133,680 in Year 1 to $686,928 by Year 5 to support marketing, rent, insurance, utilities, and other operational expenses.

In addition to operational costs, JL Data Dynamics plans to allocate funds for dividend payments, starting with $20,000 in Year 1 and growing to $100,000 in Year 5, reflecting the company's financial discipline and commitment to delivering returns to stakeholders.

Net Cash Flow and Cash Balance

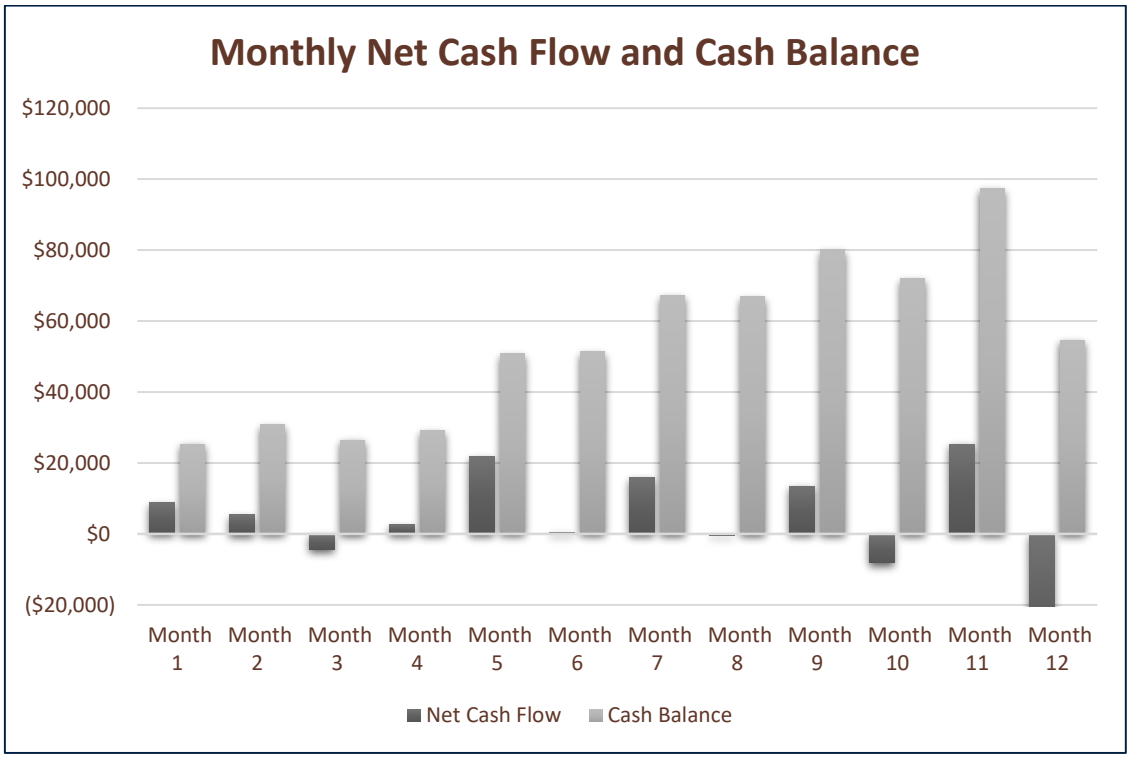
As a result of strong operating performance and efficient expense management, JL Data Dynamics projects positive net cash flow throughout the forecast period, starting at $38,070 in Year 1 and rising to $138,264 in Year 5.

The company's cash balance is expected to grow from $54,570 at the end of Year 1 to approximately $468,684 by Year 5, ensuring sufficient liquidity to support ongoing operations, reinvestment in technology, and future expansion.

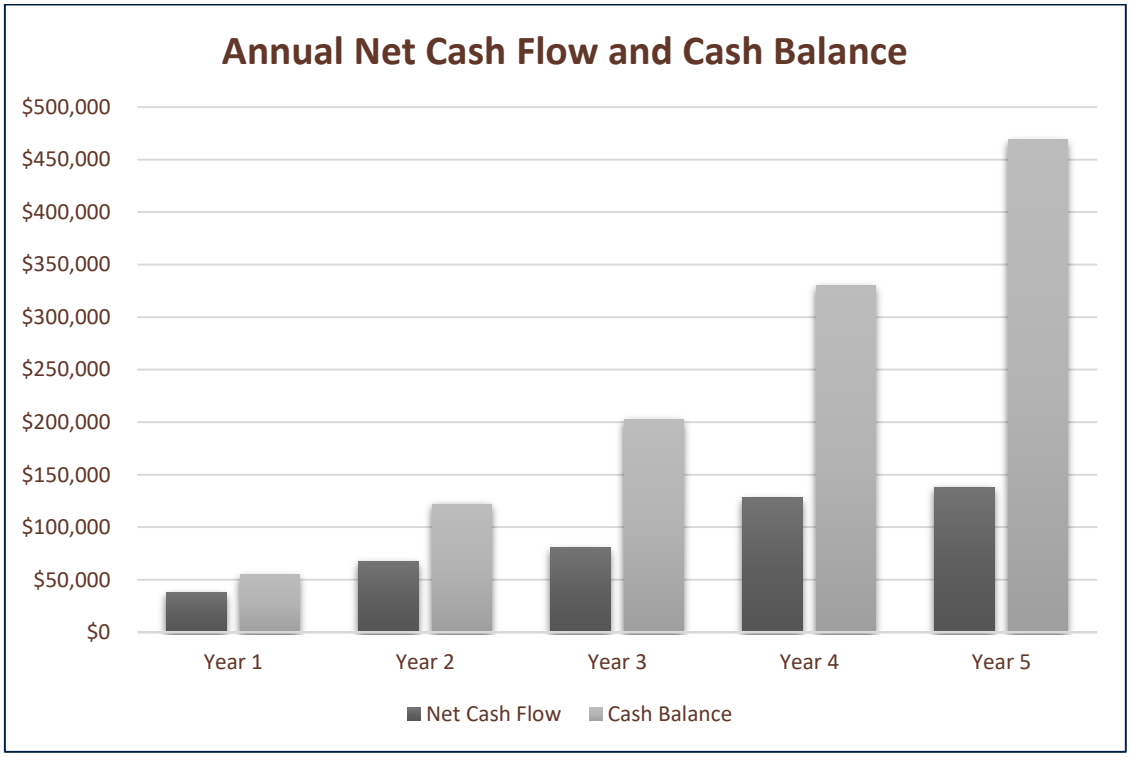
7.3.1 Annual Cash Flow Table

Pro Forma Cash Flow					
	Year 1	Year 2	Year 3	Year 4	Year 5
Cash Received					
Cash from Operations					
Cash Sales	$294,000	$710,010	$1,056,267	$1,330,896	$1,746,801
Cash from Receivables	$294,000	$710,010	$1,056,267	$1,330,896	$1,746,801
Subtotal Cash from Operations	$588,000	$1,420,020	$2,112,533	$2,661,792	$3,493,602
Additional Cash Received					
Non-Operating (Other) Income	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Received	$0	$0	$0	$0	$0
New Current Borrowing	$0	$0	$0	$0	$0
New Other Liabilities (interest-free)	$0	$0	$0	$0	$0
New Long-term Liabilities	$0	$0	$0	$0	$0
Sales of Other Current Assets	$0	$0	$0	$0	$0
Sales of Long-term Assets	$0	$0	$0	$0	$0
New Investment Received	$0	$0	$0	$0	$0
Subtotal Cash Received	$588,000	$1,420,020	$2,112,533	$2,661,792	$3,493,602
Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5
Expenditures from Operations					
Cash Spending	$396,250	$1,044,420	$1,566,357	$1,924,283	$2,568,409
Bill Payments	$133,680	$278,122	$415,833	$534,481	$686,928
Subtotal Spent on Operations	$529,930	$1,322,542	$1,982,190	$2,458,764	$3,255,338
Additional Cash Spent					
Non-Operating (Other) Expense	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Paid Out	$0	$0	$0	$0	$0
Principal Repayment of Current Borrowing	$0	$0	$0	$0	$0
Other Liabilities Principal Repayment	$0	$0	$0	$0	$0
Long-term Liabilities Principal Repayment	$0	$0	$0	$0	$0
Purchase Other Current Assets	$0	$0	$0	$0	$0
Purchase Long-term Assets	$0	$0	$0	$0	$0
Dividends	$20,000	$30,000	$50,000	$75,000	$100,000
Subtotal Cash Spent	$549,930	$1,352,542	$2,032,190	$2,533,764	$3,355,338
Net Cash Flow	$38,070	$67,478	$80,343	$128,028	$138,264
Cash Balance	**$54,570**	**$122,048**	**$202,392**	**$330,420**	**$468,684**

7.3.2 Monthly Net Cash Flow and Cash Balance Chart



7.3.3 Annual Net Cash Flow and Cash Balance Chart



7.4 Balance Sheet Assumptions

JL Data Dynamics is projected to maintain a strong financial position and sustainable growth trajectory throughout its first five years of operation, as reflected in the Pro Forma Balance Sheet. The company's financial structure emphasizes liquidity and operational efficiency, ensuring flexibility to reinvest in innovation and workforce expansion.

Assets

JL Data Dynamics will adopt a lean asset structure, prioritizing cash holdings over fixed or inventory-based assets to maintain agility and low working capital requirements.

- Total current assets are projected to rise steadily from $54,570 in Year 1 to $468,684 by Year 5, composed entirely of cash.
- The company will not hold accounts receivable, inventory, or other current assets during the forecast period, underscoring its commitment to efficient operations and a pay-upon-service model.
- Accumulated depreciation will increase gradually from $0 in Year 1 to $21,000 by Year 5, representing the amortization of essential office equipment and software tools. Consequently, total assets will grow from $54,570 in Year 1 to $447,684 in Year 5, indicating consistent financial expansion fueled by retained earnings and profitability.

Liabilities

JL Data Dynamics plans to maintain a minimal liability profile, reflecting its strategy of operating debt-free.

- Current liabilities, consisting solely of accounts payable, will increase from $6,762 in Year 1 to $57,511 in Year 5, in line with rising business activity and operational expenditures.
- The company will avoid long-term borrowing, ensuring financial independence and eliminating interest-related expenses.

Capital and Net Worth

The company's paid-in capital will remain stable at $38,500, representing Mr. José Evandeilton Lopes's founding investment.

- Retained earnings will improve significantly, transitioning from a negative $42,000 in Year 1, reflecting initial startup costs, to a positive $133,696 by Year 5, demonstrating sustained profitability.
- Annual earnings are forecasted to grow from $51,308 in Year 1 to $217,977 in Year 5, driven by expanding service demand and operational efficiency.

- As a result, total capital will increase from $47,808 in Year 1 to $390,173 by Year 5, and net worth will follow the same upward trend, indicating the company's growing equity base and financial strength.

Financial Outlook

Through disciplined financial management, zero-debt operations, and consistent reinvestment of profits, JL Data Dynamics is expected to build a robust financial foundation. This approach ensures the company's long-term sustainability and its capacity to expand within the U.S. data science, analytics, and cybersecurity markets, reinforcing investor confidence and long-term economic viability.

7.4.1 Annual Balance Sheet Table

Pro Forma Balance Sheet					
	Year 1	Year 2	Year 3	Year 4	Year 5
Assets					
Current Assets					
Cash	$54,570	$122,048	$202,392	$330,420	$468,684
Accounts Receivable	$0	$0	$0	$0	$0
Inventory	$0	$0	$0	$0	$0
Other Current Assets	$0	$0	$0	$0	$0
Total Current Assets	$54,570	$122,048	$202,392	$330,420	$468,684
Long-term Assets					
Long-term Assets	$0	$0	$0	$0	$0
Accumulated Depreciation	$0	$3,000	$7,500	$13,500	$21,000
Total Long-term Assets	$0	($3,000)	($7,500)	($13,500)	($21,000)
Total Assets	$54,570	$119,048	$194,892	$316,920	$447,684
Liabilities and Capital	Year 1	Year 2	Year 3	Year 4	Year 5
Current Liabilities					
Accounts Payable	$6,762	$24,301	$35,063	$44,724	$57,511
Current Borrowing	$0	$0	$0	$0	$0
Other Current Liabilities	$0	$0	$0	$0	$0
Subtotal Current Liabilities	$6,762	$24,301	$35,063	$44,724	$57,511
Long-term Liabilities	$0	$0	$0	$0	$0
Total Liabilities	$6,762	$24,301	$35,063	$44,724	$57,511
Paid-in Capital	$38,500	$38,500	$38,500	$38,500	$38,500
Retained Earnings	($42,000)	($20,692)	$6,247	$46,329	$133,696
Earnings	$51,308	$76,939	$115,082	$187,367	$217,977
Total Capital	$47,808	$94,747	$159,829	$272,196	$390,173
Total Liabilities and Capital	$54,570	$119,048	$194,892	$316,920	$447,684
Net Worth	**$47,808**	**$94,747**	**$159,829**	**$272,196**	**$390,173**

8.0 Mr. José Evandeilton Lopes's National-level Impact

JL Data Dynamics, founded and led by Mr. José Evandeilton Lopes, is strategically positioned to deliver national-level benefits to the United States through advanced data analytics, fraud intelligence, and statistical modeling solutions. By offering services in Advanced Statistical Modeling and Machine Learning, Data Infrastructure and Governance, Fraud Risk Analytics and Decision Intelligence, and Data Science Training and Applied Statistical Education, the company will directly support federal priorities to protect critical sectors, strengthen economic resilience, and expand the national data and analytics workforce.

These capabilities align with the country's efforts to modernize digital infrastructure, enhance fraud prevention systems in regulated industries, and build a robust talent pipeline to address workforce shortages in advanced analytics and AI.

Alignment with National Data and Technology Priorities

The U.S. government is increasingly investing in data-driven infrastructure modernization and AI innovation to protect critical sectors and maintain technological leadership. Policies such as the National Artificial Intelligence Research[18] and Development Strategic Plan (2023) and the Federal Data Strategy emphasize the importance of improving data infrastructure, applying AI for risk management, and fostering analytical talent.

JL Data Dynamics' services align with these initiatives by providing actionable intelligence and predictive modeling that help government agencies, financial institutions, and private enterprises make smarter, faster, and more secure decisions.

Strengthening Fraud Detection and Economic Security

Fraud and financial crimes cost the U.S. economy billions of dollars annually, undermining public trust and national economic stability. Federal agencies such as the Federal Trade Commission, Department of the Treasury, and Financial Crimes Enforcement Network have made fraud prevention a strategic priority.

JL Data Dynamics will contribute to these efforts by delivering Fraud Risk Analytics and Decision Intelligence solutions that:

- Detect anomalies and prevent fraudulent activities through predictive modeling,
- Strengthen compliance and reporting frameworks in regulated industries,
- Support the financial sector in protecting critical transaction infrastructures, and
- Reduce economic losses related to fraud and abuse.

[18] https://www.nsf.gov/focus-areas/ai/nairr

Enhancing National Data Infrastructure and Governance

Data integrity, interoperability, and security are essential to the effective operation of federal agencies and critical industries. JL Data Dynamics' Data Infrastructure and Governance Services will help organizations:

- Build modern, scalable, and compliant data architectures,
- Strengthen data quality and governance practices,
- Support transparent decision-making and reporting, and
- Align operations with federal data and AI initiatives.

This contributes directly to national resilience, enabling smarter public sector operations and better protection of sensitive information in key industries.

Advancing AI and Machine Learning for National Competitiveness

The National Science Foundation and National Institute of Standards and Technology highlight the critical role of AI and machine learning in maintaining U.S. competitiveness. JL Data Dynamics' Advanced Statistical Modeling and Machine Learning Solutions will support these efforts by:

- Providing predictive and prescriptive analytics to enhance decision-making,
- Supporting innovation in public health, financial systems, and infrastructure,
- Enabling early detection of systemic risks and emerging threats.

Addressing the Advanced Analytics Workforce Gap

The U.S. faces a significant shortage of skilled professionals in data science, machine learning, and applied statistics, fields that are critical to both public and private sector modernization. The National Artificial Intelligence Research Resource Task Force Final Report highlights the importance of workforce development and educational pipelines.

JL Data Dynamics will address this gap through Data Science Training and Applied Statistical Education, offering specialized programs that prepare professionals to work with real-world datasets, develop predictive models, and support compliance-driven industries.

Contribution to National Interest

Through its data-centric services, JL Data Dynamics will make direct and measurable contributions to national priorities by:

- Enhancing fraud detection and protecting the U.S. economy,
- Supporting data infrastructure modernization and governance compliance,

- Advancing the use of AI and machine learning in strategic industries,
- Expanding the analytics and data science talent pipeline.

Mr. José Evandeilton Lopes's leadership and expertise ensure the company's solutions will support federal modernization goals, protect critical sectors, and strengthen the nation's technological competitiveness. JL Data Dynamics is well positioned to become a key partner in the U.S. digital transformation agenda.

8.1 Government incentives

JL Data Dynamics will actively pursue various government incentives to support its growth and operational objectives. These incentives, available at federal, state, and local levels, will play a crucial role in reducing operational costs, increasing profitability, and fostering innovation.

Federal Incentives:

- **Small Business Administration (SBA) Programs:** JL Data Dynamics will leverage SBA loans and grants designed to support small businesses in their early stages. These programs offer low-interest loans and access to capital that will help in funding initial operations and expansion projects.
- **Research and Development (R&D) Tax Credits:** The company will take advantage of federal R&D tax credits that encourage innovation and technological development. By investing in cutting-edge software development and AI solutions, JL Data Dynamics can benefit from significant tax savings.
- **Work Opportunity Tax Credit (WOTC):** By hiring employees from certain target groups who face barriers to employment, JL Data Dynamics will be eligible for WOTC, which provides tax credits for each qualified hire.

State Incentives (North Carolina)

- **One North Carolina Fund:** JL Data Dynamics may qualify for One North Carolina Fund, which provides discretionary grants to businesses creating new jobs and making significant investments in the state. These funds can support expansion and infrastructure investments in the Raleigh–Durham innovation corridor.
- **Job Development Investment Grant (JDIG):** The Job Development Investment Grant offers performance-based incentives for high-impact job creation. By expanding its team of data scientists, engineers, and analysts, JL Data Dynamics may qualify for annual cash grants based on payroll tax withholdings.
- **Research and Innovation Grants:** JL Data Dynamics will explore opportunities to collaborate with the North Carolina Department of Commerce and regional innovation initiatives to

secure funding for applied research, particularly in data science and AI applications that align with state economic development priorities.

- **Workforce Development and Training Programs:** North Carolina offers robust workforce development support through the North Carolina Community College System. Through the Customized Training Program, JL Data Dynamics can access grants to train and upskill employees, ensuring a competitive workforce.
- **Sales and Use Tax Exemptions:** JL Data Dynamics may benefit from exemptions on eligible R&D and data processing equipment purchases, reducing technology investment costs.

Local Incentives (Raleigh and Wake County)

- **Property Tax Abatement Programs:** Wake County and the City of Raleigh offer property tax abatements and rebates for companies establishing or expanding operations in key industry clusters, including technology and analytics. This incentive can significantly reduce annual operating costs.
- **Economic Development Grants and Matching Funds:** Through partnerships with the Wake County Economic Development and Research Triangle Regional Partnership, JL Data Dynamics can pursue matching grants to support innovation projects, facility expansion, and workforce programs.
- **Workforce Pipeline Programs:** Collaboration with NCWorks, regional universities, and technical colleges will give JL Data Dynamics access to subsidized training programs and a steady pipeline of skilled data science and AI professionals.

Impact on Growth and Sustainability

By strategically leveraging these incentives, JL Data Dynamics will significantly reduce operational costs, accelerate R&D efforts, and strengthen its workforce capabilities. These resources will enable the company to scale effectively, remain competitive in the fast-growing data analytics and AI sector, and contribute to the state's economic development.

Mr. José Evandeilton Lopes's leadership in aligning company strategy with available incentive programs will be instrumental in establishing JL Data Dynamics as a key technology player in North Carolina, supporting local job creation, innovation, and national economic resilience.

9.0 Indirect jobs creation - Economic Policy Institute

Each industry has backward linkages to economic sectors that provide the materials needed for the industry's output, just as each industry has forward linkages to the economic sectors where the industry's workers spend their income. Therefore, in addition to the jobs directly supported by an industry, a large number of indirect jobs may also be supported by that industry. The

subtraction or addition of jobs and output in industries with strong backward and forward linkages to other economic sectors can cause large ripple effects.

According to the national job multipliers published by the Economy Policy Institute (EPI) on January 23, 2019,[19] 100 direct jobs in the Computer system design, and related services industry generate a total of 283.4 total indirect jobs, as demonstrated in the following table:

Employment multipliers per 100 direct jobs, all private-sector industries

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
	Professional, scientific, and technical services				
125	Legal services	100.0	89.2	111.3	200.5
126	Accounting, tax preparation, bookkeeping, and payroll services	100.0	52.0	81.3	133.4
127	Architectural, engineering, and related services	100.0	90.0	114.1	204.1
128	Specialized design services	100.0	67.5	97.4	164.9
129	Computer systems design and related services	100.0	134.1	149.3	283.4
130	Management, scientific, and technical consulting services	100.0	91.1	116.5	207.6
131	Scientific research and development services	100.0	519.3	323.7	842.9
132	Advertising, public relations, and related services	100.0	460.9	270.7	731.6
133	Other professional, scientific, and technical services	100.0	70.8	83.6	154.3

Since Mr. Lopes will create 21 direct jobs by the end of Year 5, the total number of indirect jobs to be generated in the same period will reach 59 according to the multipliers provided by the EPI. In addition to its in-house team, JL Data Dynamics will hire a number of independent contractors on a project basis, including legal professionals and technicians. Additionally, the company will mediate in the hiring of professionals that will perform services that are deemed to be required. Therefore, the company will stimulate the employment of a number of workers of different profiles. Furthermore, the company will hire an outsourced marketing company to develop its website and work with marketing campaigns.

The direct and indirect job creation by JL Data Dynamics, as well as the utilization of independent contractors and outsourced services, will have a significant positive impact on the local and national economy, fostering job growth, generating income, and contributing to overall economic prosperity.

JL Data Dynamics' expansion plans, under the leadership of Mr. José Evandeilton Lopes, encompass the creation of direct and indirect employment opportunities, the payment of substantial taxes, and the utilization of local resources and services. By contributing to job creation, tax revenue, and economic growth, JL Data Dynamics aims to make a lasting and positive impact on both the local community and the broader U.S. economy.

[19] https://www.epi.org/publication/updated-employment-multipliers-for-the-u-s-economy/

APPENDIX

Monthly Sales Forecast Table

Sales Forecast													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Unit Sales													
Advanced Statistical Modeling and Machine Learning Solutions		1	1	0	1	1	0	1	1	2	1	2	2
Data Infrastructure and Governance Services		0	1	1	1	2	1	2	1	1	1	1	0
Fraud Risk Analytics and Decision Intelligence		0	0	0	1	1	2	1	1	1	1	2	0
Data Science Training and Applied Statistical Education		0	0	1	0	1	1	1	1	1	1	1	1
Total Unit Sales		1	2	2	3	5	4	5	4	5	4	6	3
Unit Prices		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Advanced Statistical Modeling and Machine Learning Solutions		$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$15,000.00
Data Infrastructure and Governance Services		$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00	$12,500.00
Fraud Risk Analytics and Decision Intelligence		$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00	$13,500.00
Data Science Training and Applied Statistical Education		$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00	$12,000.00
Sales													
Advanced Statistical Modeling and Machine Learning Solutions		$15,000	$15,000	$0	$15,000	$15,000	$0	$15,000	$15,000	$30,000	$15,000	$30,000	$30,000

179

Data Infrastructure and Governance Services		$0	$12,500	$12,500	$12,500	$25,000	$12,500	$25,000	$12,500	$12,500	$12,500	$12,500	$0
Fraud Risk Analytics and Decision Intelligence		$0	$0	$0	$13,500	$13,500	$27,000	$13,500	$13,500	$13,500	$13,500	$27,000	$0
Data Science Training and Applied Statistical Education		$0	$0	$12,000	$0	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
Total Sales		$15,000	$27,500	$24,500	$41,000	$65,500	$51,500	$65,500	$53,000	$68,000	$53,000	$81,500	$42,000
Direct Unit Costs		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Advanced Statistical Modeling and Machine Learning Solutions	8.00%	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00	$1,200.00
Data Infrastructure and Governance Services	8.00%	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00
Fraud Risk Analytics and Decision Intelligence	8.00%	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00	$1,080.00
Data Science Training and Applied Statistical Education	8.00%	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00	$960.00
Direct Cost of Sales													
Advanced Statistical Modeling and Machine Learning Solutions		$1,200	$1,200	$0	$1,200	$1,200	$0	$1,200	$1,200	$2,400	$1,200	$2,400	$2,400
Data Infrastructure and Governance Services		$0	$1,000	$1,000	$1,000	$2,000	$1,000	$2,000	$1,000	$1,000	$1,000	$1,000	$0
Fraud Risk Analytics and Decision Intelligence		$0	$0	$0	$1,080	$1,080	$2,160	$1,080	$1,080	$1,080	$1,080	$2,160	$0
Data Science Training and Applied Statistical Education		$0	$0	$960	$0	$960	$960	$960	$960	$960	$960	$960	$960
Subtotal Direct Cost of Sales		**$1,200**	**$2,200**	**$1,960**	**$3,280**	**$5,240**	**$4,120**	**$5,240**	**$4,240**	**$5,440**	**$4,240**	**$6,520**	**$3,360**

180

Monthly Personnel Plan Table

Personnel Plan													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
General Manager & Senior Data Scientist - Mr. José Evandeilton Lopes		$0	$10,000	$10,000	$10,000	$12,000	$12,000	$15,000	$15,000	$15,000	$18,000	$18,000	$18,000
Lead Risk & Data Science Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$10,000	$10,000	$10,000	$10,000
Machine Learning Engineer		$0	$0	$0	$11,250	$11,250	$11,250	$11,250	$11,250	$11,250	$11,250	$11,250	$11,250
Data Engineer & Analytics Pipeline Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Statistical Modeling Analyst		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Senior Fraud & Credit Analytics Scientist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Applied Data Science Instructor		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Project Manager		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Marketing and Communications Specialist		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales Representative		$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000	$6,000
Administrative Manager		$0	$0	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$0	$0	$0	$0
Customer Service Representative		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total People		2	2	3	4	4	4	4	4	5	5	5	5
Total Payroll		**$6,000**	**$16,000**	**$21,000**	**$32,250**	**$34,250**	**$34,250**	**$37,250**	**$37,250**	**$42,250**	**$45,250**	**$45,250**	**$45,250**

181

Monthly Profit and Loss Table

Pro Forma Profit and Loss													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Sales		$15,000	$27,500	$24,500	$41,000	$65,500	$51,500	$65,500	$53,000	$68,000	$53,000	$81,500	$42,000
Direct Cost of Sales		$1,200	$2,200	$1,960	$3,280	$5,240	$4,120	$5,240	$4,240	$5,440	$4,240	$6,520	$3,360
Other Costs of Sales		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Cost of Sales		$1,200	$2,200	$1,960	$3,280	$5,240	$4,120	$5,240	$4,240	$5,440	$4,240	$6,520	$3,360
Gross Margin		$13,800	$25,300	$22,540	$37,720	$60,260	$47,380	$60,260	$48,760	$62,560	$48,760	$74,980	$38,640
Gross Margin %		92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%	92.00%
Expenses													
Payroll		$6,000	$16,000	$21,000	$32,250	$34,250	$34,250	$37,250	$37,250	$42,250	$45,250	$45,250	$45,250
Payroll Taxes	10%	$600	$1,600	$2,100	$3,225	$3,425	$3,425	$3,725	$3,725	$4,225	$4,525	$4,525	$4,525
Depreciation		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Rent		$1,800	$1,800	$1,800	$1,800	$1,800	$1,800	$1,800	$1,800	$1,800	$1,800	$1,800	$1,800
Insurance		$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200	$200
Marketing/Promotion		$500	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500
Utilities/Internet/Phone		$150	$150	$150	$150	$150	$150	$150	$150	$150	$150	$150	$150
Employees Education	0%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Accountant	0%	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250
Total Operating Expenses		$9,500	$20,500	$26,000	$38,375	$40,575	$40,575	$43,875	$43,875	$49,375	$52,675	$52,675	$52,675
Profit Before Interest and Taxes		$4,300	$4,800	($3,460)	($655)	$19,685	$6,805	$16,385	$4,885	$13,185	($3,915)	$22,305	($14,035)
EBITDA		$4,300	$4,800	($3,460)	($655)	$19,685	$6,805	$16,385	$4,885	$13,185	($3,915)	$22,305	($14,035)
Interest Expense		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Taxes Incurred		$1,161	$1,296	($934)	($177)	$5,315	$1,837	$4,424	$1,319	$3,560	($1,057)	$6,022	($3,789)
Net Other Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net Profit		$3,139	$3,504	($2,526)	($478)	$14,370	$4,968	$11,961	$3,566	$9,625	($2,858)	$16,283	($10,246)
Net Profit/Sales		**20.93%**	**12.74%**	**-10.31%**	**-1.17%**	**21.94%**	**9.65%**	**18.26%**	**6.73%**	**14.15%**	**-5.39%**	**19.98%**	**-24.39%**

Monthly Cash Flow Table

Pro Forma Cash Flow													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Cash Received													
Cash from Operations													
Cash Sales		$7,500	$13,750	$12,250	$20,500	$32,750	$25,750	$32,750	$26,500	$34,000	$26,500	$40,750	$21,000
Cash from Receivables		$7,500	$13,750	$12,250	$20,500	$32,750	$25,750	$32,750	$26,500	$34,000	$26,500	$40,750	$21,000
Subtotal Cash from Operations		$15,000	$27,500	$24,500	$41,000	$65,500	$51,500	$65,500	$53,000	$68,000	$53,000	$81,500	$42,000
Additional Cash Received													
Non-Operating (Other) Income		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Received	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Current Borrowing		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Other Liabilities (interest-free)		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Long-term Liabilities		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales of Other Current Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales of Long-term Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
New Investment Received		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Cash Received		$15,000	$27,500	$24,500	$41,000	$65,500	$51,500	$65,500	$53,000	$68,000	$53,000	$81,500	$42,000
Expenditures		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Expenditures from Operations													
Cash Spending		$6,000	$16,000	$21,000	$32,250	$34,250	$34,250	$37,250	$37,250	$42,250	$45,250	$45,250	$45,250
Bill Payments		$195	$5,932	$7,930	$6,133	$9,483	$16,727	$12,416	$16,152	$12,315	$15,941	$10,920	$19,535
Subtotal Spent on Operations		$6,195	$21,932	$28,930	$38,383	$43,733	$50,977	$49,666	$53,402	$54,565	$61,191	$56,170	$64,785
Additional Cash Spent													
Non-Operating (Other) Expense		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sales Tax, VAT, HST/GST Paid Out		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Principal Repayment of Current Borrowing		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Liabilities Principal Repayment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Long-term Liabilities Principal Repayment		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Purchase Other Current Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Purchase Long-term Assets		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Dividends		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$20,000
Subtotal Cash Spent		$6,195	$21,932	$28,930	$38,383	$43,733	$50,977	$49,666	$53,402	$54,565	$61,191	$56,170	$84,785
Net Cash Flow		$8,805	$5,568	($4,430)	$2,617	$21,767	$523	$15,834	($402)	$13,435	($8,191)	$25,330	($42,785)
Cash Balance		**$25,305**	**$30,872**	**$26,442**	**$29,060**	**$50,826**	**$51,350**	**$67,184**	**$66,782**	**$80,216**	**$72,025**	**$97,355**	**$54,570**

Monthly Balance Sheet Table

Pro Forma Balance Sheet													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Assets	Starting Balances												
Current Assets													
Cash	$16,500	$25,305	$30,872	$26,442	$29,060	$50,826	$51,350	$67,184	$66,782	$80,216	$72,025	$97,355	$54,570
Accounts Receivable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Current Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Current Assets	$16,500	$25,305	$30,872	$26,442	$29,060	$50,826	$51,350	$67,184	$66,782	$80,216	$72,025	$97,355	$54,570
Long-term Assets													
Long-term Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Accumulated Depreciation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Long-term Assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Assets	$16,500	$25,305	$30,872	$26,442	$29,060	$50,826	$51,350	$67,184	$66,782	$80,216	$72,025	$97,355	$54,570
Liabilities and Capital		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Current Liabilities													
Accounts Payable	$0	$5,666	$7,729	$5,825	$8,921	$16,317	$11,873	$15,746	$11,778	$15,587	$10,254	$19,302	$6,762
Current Borrowing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Current Liabilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Subtotal Current Liabilities	$0	$5,666	$7,729	$5,825	$8,921	$16,317	$11,873	$15,746	$11,778	$15,587	$10,254	$19,302	$6,762
Long-term Liabilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Liabilities	$0	$5,666	$7,729	$5,825	$8,921	$16,317	$11,873	$15,746	$11,778	$15,587	$10,254	$19,302	$6,762
Paid-in Capital	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500	$38,500
Retained Earnings	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($22,000)	($42,000)
Earnings	$0	$3,139	$6,643	$4,117	$3,639	$18,009	$22,977	$34,938	$38,504	$48,129	$45,271	$61,554	$51,308
Total Capital	$16,500	$19,639	$23,143	$20,617	$20,139	$34,509	$39,477	$51,438	$55,004	$64,629	$61,771	$78,054	$47,808
Total Liabilities and Capital	$16,500	$25,305	$30,872	$26,442	$29,060	$50,826	$51,350	$67,184	$66,782	$80,216	$72,025	$97,355	$54,570
Net Worth	**$16,500**	**$19,639**	**$23,143**	**$20,617**	**$20,139**	**$34,509**	**$39,477**	**$51,438**	**$55,004**	**$64,629**	**$61,771**	**$78,054**	**$47,808**

As Nationwide Fraud Losses Top $10 Billion in 2023, FTC Steps Up Efforts to Protect the Public

ftc.gov/news-events/news/press-releases/2024/02/nationwide-fraud-losses-top-10-billion-2023-ftc-steps-efforts-protect-public

8 de fevereiro de 2024

Tags:

- Consumer Protection
- Bureau of Consumer Protection
- Consumer Sentinel Network

Newly released Federal Trade Commission data show that consumers reported losing more than $10 billion to fraud in 2023, marking the first time that fraud losses have reached that benchmark. This marks a 14% increase over reported losses in 2022.

Consumers reported losing more money to investment scams—more than $4.6 billion—than any other category in 2023. That amount represents a 21% increase over 2022. The second highest reported loss amount came from imposter scams, with losses of nearly $2.7 billion reported. In 2023, consumers reported losing more money to bank transfers and cryptocurrency than all other methods combined.

"Digital tools are making it easier than ever to target hard-working Americans, and we see the effects of that in the data we're releasing today," said Samuel Levine, Director of the FTC's Bureau of Consumer Protection. "The FTC is working hard to take action against those scams."

The FTC received fraud reports from 2.6 million consumers last year, nearly the same amount as 2022. The most commonly reported scam category was imposter scams, which saw significant increases in reports of both business and government impersonators.

FEDERAL TRADE COMMISSION

A Scammy Snapshot of 2023

(based on reports to Consumer Sentinel)

ftc.gov/data

ReportFraud.ftc.gov

Top Frauds

1. Imposters
2. Online shopping and negative reviews
3. Prizes, sweepstakes, lotteries
4. Investments
5. Business and job opportunities

2.6 million fraud reports

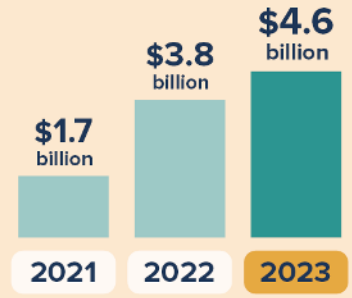
$10 billion reported lost

The number of reports and the amount lost is up.

(2022: 2.5 million fraud reports, $9 billion lost)

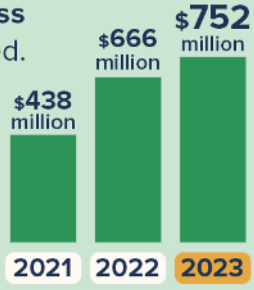
Reported losses to **investment scams** grew.





Losses to **business imposters** climbed.





Losses to **FTC imposters** soared.



$3,000 median loss

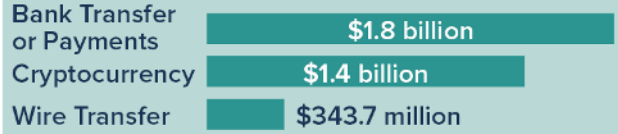
$7,000 median loss

Reports by Military Consumers

Imposters: Highest # of reports: **42,000**
Highest total losses: **$178 million**

Investments: Highest % with loss: **81%**
Highest median losses: **$7,000**

Top Payment Methods and Losses



Scammers contacting people by phone or on social led to big losses.

Phone calls: Highest **per person** reported losses

$1,480 median loss

Social media: Highest **overall** reported losses

$1.4 billion total lost

Email: Highest **# of reports**

358,000 reports

Online shopping issues were the second most commonly reported in the fraud category, followed by prizes, sweepstakes, and lotteries; investment-related reports; and business and job opportunity scams.

Another first is the method scammers reportedly used to reach consumers most commonly in 2023: email. Email displaced text messages, which held the top spot in 2022 after decades of phone calls being the most common. Phone calls are the second most commonly reported contact method for fraud in 2023, followed by text messages.

The Commission monitors these trends carefully, and is taking a comprehensive approach to detect, halt, and deter consumer fraud, including in 2023 alone:

- **Leading the largest-ever crackdown on illegal telemarketing**: The FTC joined more than 100 federal and state law enforcement partners nationwide, including the attorneys general from all 50 states and the District of Columbia in Operation Stop Scam Calls, a crackdown on illegal telemarketing calls involving more than 180 actions targeting operations responsible for billions of calls to U.S. consumers.
- **Proposing a ban on impersonator fraud:** The FTC is in the final stages of a rulemaking process targeting business and government impersonation scams.
- **Cracking Down on Investment Schemes:** The FTC has brought multiple cases against investment and business opportunity schemes, including Wealthpress, Blueprint to Wealth, Traffic and Funnels, Automators and Ganadores.
- **Confronting Emerging Forms of Fraud:** The FTC has taken steps to listen to consumers and build knowledge and tools to fight emerging frauds. For example, the FTC announced a challenge in 2023 to help promote the development of ideas to protect consumers from the misuse of artificial intelligence-enabled voice cloning for fraud and other harms.
- **Stepping up CAN-SPAM Enforcement**: The FTC is using its authority under the CAN-SPAM Act to rein in unlawful actions, including in cases against Publishers Clearing House and Experian.
- **Reaching Every Community:** The FTC has expanded its ability to hear directly from consumers in multiple languages through the Consumer Sentinel Network.

The FTC's Consumer Sentinel Network is a database that receives reports directly from consumers, as well as from federal, state, and local law enforcement agencies, the Better Business Bureau, industry members, and non-profit organizations. More than 20 states contribute data to Sentinel.

Sentinel received 5.4 million reports in 2023; these include the fraud reports detailed above, as well as identity theft reports and complaints related to other consumer issues, such as problems with credit bureaus and banks and lenders. In 2023, there were more than 1 million reports of identity theft received through the FTC's IdentityTheft.gov website.

The FTC uses the reports it receives through the Sentinel network as the starting point for many of its law enforcement investigations, and the agency also shares these reports with approximately 2,800 federal, state, local, and international law enforcement professionals. While the FTC does not intervene in individual complaints, Sentinel reports are a vital part of the agency's law enforcement mission and also help the FTC to warn consumers and identify fraud trends it is seeing in the data.

A full breakdown of reports received in 2023 is now available on the FTC's data analysis site at ftc.gov/exploredata. The data dashboards there break down the reports across a number of categories, including by state and metropolitan area, and also provide data from a number of subcategories of fraud reports.
The Federal Trade Commission works to promote competition and protect and educate consumers. The FTC will never demand money, make threats, tell you to transfer money, or promise you a prize. Learn more about consumer topics at consumer.ftc.gov, or report fraud, scams, and bad business practices at ReportFraud.ftc.gov. Follow the FTC on social media, read consumer alerts and the business blog, and sign up to get the latest FTC news and alerts.

Contact Information

Contact for Consumers

FTC Consumer Response Center

877-382-4357

https://reportfraud.ftc.gov

Media Contact

Jay Mayfield

Office of Public Affairs

202-326-2180

H.R.6216 - 116th Congress (2019-2020): National Artificial Intelligence Initiative Act of 2020 | Congress.gov

congress.gov/bill/116th-congress/house-bill/6216



Subscribe

Home > Legislation > 116th Congress > H.R.6216

H.R.6216 - National Artificial Intelligence Initiative Act of 2020 116th Congress (2019-2020)

Bill

Sponsor:	Rep. Johnson, Eddie Bernice [D-TX-30] (Introduced 03/12/2020)
Committees:	House - Science, Space, and Technology
Latest Action:	House - 03/12/2020 Referred to the House Committee on Science, Space, and Technology. (All Actions)

Tracker: Tip	This bill has the status Introduced Here are the steps for Status of Legislation: 1. Introduced

More on This Bill

- Constitutional Authority Statements
- CBO Cost Estimates [0]

Subject — Policy Area:

- Science, Technology, Communications
- View subjects

There is one summary for H.R.6216. Bill summaries are authored by CRS.

Shown Here:
Introduced in House (03/12/2020)

National Artificial Intelligence Initiative Act of 2020

This bill establishes the National Artificial Intelligence Initiative and sets forth related activities.

The Office of Science and Technology Policy (OSTP) shall establish or designate the National Artificial Intelligence Initiative Office to carry out the responsibilities described in this bill with respect to the initiative.

The National Science and Technology Council shall establish or designate an Interagency Committee to coordinate federal programs and activities in support of the initiative.

The Department of Energy (DOE) shall establish the National Artificial Intelligence Advisory Committee to advise the President and the Initiative Office on matters related to the initiative. DOE must also carry out an artificial intelligence research and development program to (1) advance artificial intelligence tools, systems, capabilities, and workforce needs; and (2) improve the reliability of artificial intelligence methods and solutions relevant to DOE's mission.

The National Science Foundation (NSF) shall enter into a contract with the National Research Council of the National Academies of Sciences, Engineering, and Medicine to conduct a study of the current and future impact of artificial intelligence on the workforce of the United States.

The General Accountability Office shall conduct a study of artificial intelligence computer hardware and computing required in order to maintain U.S. leadership in artificial intelligence research and development.

The NSF shall establish a program to award financial assistance to eligible entities or their consortia to establish and support Artificial Intelligence Research Institutes.

The National Institute of Standards and Technology shall develop voluntary standards for artificial intelligence systems, among other things.

The NSF shall fund research and education activities in artificial intelligence systems and related fields.

Welcome - Federal Data Strategy

strategy.data.gov

Federal Data Strategy — Data, accountability, and transparency: creating a data strategy and infrastructure for the future

The Federal Data Strategy (FDS) encompasses a 10-year vision for how the Federal Government will accelerate the use of data to deliver on mission, serve the public, and steward resources while protecting security, privacy, and confidentiality.

Overview Annual Action Plan Resources.data.gov Data.gov
strategy.data.gov

An official website of the Office of Management and Budget, the CDO Council and the General Services Administration.

Looking for U.S. government information and services?

Visit USA.gov

National Cybersecurity Strategy

MARCH 2023



THE WHITE HOUSE
WASHINGTON

THE WHITE HOUSE

WASHINGTON

March 1, 2023

Digital technologies today touch nearly every aspect of American life. The openness and connection enabled by access to the Internet are game-changers for communities everywhere, as we have all experienced throughout the COVID-19 pandemic. That's why, thanks to the Bipartisan Infrastructure Law, my Administration is investing $65 billion to make sure every American has access to reliable, high-speed Internet. And when we pick up our smart phones to keep in touch with loved ones, log on to social media to share our ideas with one another, or connect to the Internet to run a business or take care of any of our basic needs, we need to be able to trust that the underlying digital ecosystem is safe, reliable, and secure. This National Cybersecurity Strategy details the comprehensive approach my Administration is taking to better secure cyberspace and ensure the United States is in the strongest possible position to realize all the benefits and potential of our digital future.

Cybersecurity is essential to the basic functioning of our economy, the operation of our critical infrastructure, the strength of our democracy and democratic institutions, the privacy of our data and communications, and our national defense. From the very beginning of my Administration, we have moved decisively to strengthen cybersecurity. I appointed senior cybersecurity officials at the White House and issued an Executive Order on Improving the Nation's Cybersecurity. Working in close cooperation with the private sector, my Administration has taken steps to protect the American people from hackers, hold bad actors and cybercriminals accountable, and defend against the increasingly malicious cyber campaigns targeting our security and privacy. And we've worked with our allies and partners around the world to improve our capacity to collectively defend against and respond to cyber threats from authoritarian states that go against our national interests.

This strategy recognizes that robust collaboration, particularly between the public and private sectors, is essential to securing cyberspace. It also takes on the systemic challenge that too much of the responsibility for cybersecurity has fallen on individual users and small organizations. By working in partnership with industry; civil society; and State, local, Tribal, and territorial governments, we will rebalance the responsibility for cybersecurity to be more effective and more equitable. We will realign incentives to favor long-term investments in security, resilience, and promising new technologies. We will collaborate with our allies and partners to strengthen norms of responsible state behavior, hold countries accountable for irresponsible behavior in cyberspace, and disrupt the networks of criminals behind dangerous cyberattacks around the globe. And we will work with the Congress to provide the resources and tools necessary to ensure effective cybersecurity practices are implemented across our most critical infrastructure.

As I have often said, our world is at an inflection point. That includes our digital world. The steps we take and choices we make today will determine the direction of our world for decades

to come. This is particularly true as we develop and enforce rules and norms for conduct in cyberspace. We must ensure the Internet remains open, free, global, interoperable, reliable, and secure—anchored in universal values that respect human rights and fundamental freedoms. Digital connectivity should be a tool that uplifts and empowers people everywhere, not one used for repression and coercion. As this strategy details, the United States is prepared to meet this challenge from a position of strength, leading in lockstep with our closest allies and working with partners everywhere who share our vision for a brighter digital future.

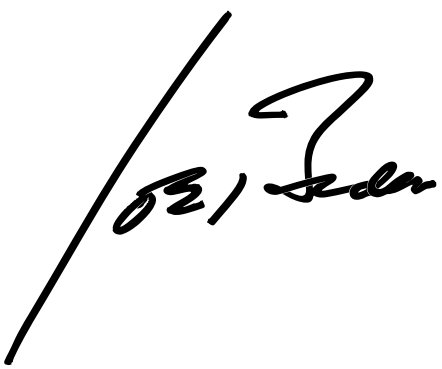


TABLE OF CONTENTS

INTRODUCTION 1
PILLAR ONE | DEFEND CRITICAL INFRASTRUCTURE 7
PILLAR TWO | DISRUPT AND DISMANTLE THREAT ACTORS 14
PILLAR THREE | SHAPE MARKET FORCES TO DRIVE SECURITY AND RESILIENCE 19
PILLAR FOUR | INVEST IN A RESILIENT FUTURE 23
PILLAR FIVE | FORGE INTERNATIONAL PARTNERSHIPS TO PURSUE SHARED GOALS 29
IMPLEMENTATION 34

INTRODUCTION

The Internet has transformed our world. In a single generation, it has revolutionized the way we innovate, communicate, and share information on a global scale, catalyzing unprecedented advancements in human prosperity, equality, and connectivity. Upon this Internet backbone we have built a flourishing digital ecosystem, combining systems and technologies with our economies, our societies, and ourselves.

In doing so, the digital ecosystem has come to reflect the values of its architects and its users. Technologies have promoted democracy, free speech, innovation, and equality. But they also have been misused to enable transnational repression and digital authoritarianism; steal data and intellectual property; distribute disinformation; disrupt critical infrastructure; proliferate online harassment, exploitation, and abuse; enable criminals and foster violent extremism; and threaten peace and stability. People and technology are increasingly linked, further enabling the very best, as well as the worst, of humanity.

In this decisive decade, we have grand ambitions for the further values-driven development of our digital ecosystem. We are building a smart grid, powered by distributed renewable electricity and balanced with intelligent systems, that promises a bright and resilient future of energy abundance. We envision a maturing "Internet of Things" (IoT), comprising everything from consumer goods to digitized industrial controls to constellations of satellites, that will increase efficiency and safety while providing game-changing insights into our environment and economy. We are laying the foundations for real-time global collaboration leveraging vast amounts of data and computing power that will unlock scientific discoveries and other public goods of which we cannot yet conceive.

Achieving this vision of a prosperous, connected future will depend upon the cybersecurity and resilience of its underlying technologies and systems. We have learned hard lessons and made significant progress in the collaborative defense of our digital ecosystem. Every day, cyber defenders foil state-backed attacks and prevent criminal plots around the world. But the underlying structural dynamics of the digital ecosystem frustrate their efforts. Its components remain prone to disruption, vulnerable to exploitation, and are often co-opted by malicious actors.

We must make fundamental changes to the underlying dynamics of the digital ecosystem, shifting the advantage to its defenders and perpetually frustrating the forces that would threaten it. Our goal is a defensible, resilient digital ecosystem where it is costlier to attack systems than defend them, where sensitive or private information is secure and protected, and where neither incidents nor errors cascade into catastrophic, systemic consequences. In creating these conditions, we can and must seize the opportunity to instill our most cherished values, as embodied by the Declaration for the Future of the Internet (DFI) and by the Freedom Online Coalition.

This strategy will position the United States and its allies and partners to build that digital ecosystem together, making it more easily and inherently defensible, resilient, and aligned with our values. By the end of this decisive decade, we will achieve these outcomes so we can confidently take bold leaps into a digitally-enabled future that benefits us all.



The Strategic Environment

The United States has made significant progress toward achieving the President's affirmative vision for a digitally-enabled future, but emerging trends are creating both new opportunities for further advancement and new challenges to overcome. Malicious actors threaten our progress toward a digital ecosystem that is inclusive, equitable, promotes prosperity, and aligns with our democratic values.

Emerging Trends

The world is entering a new phase of deepening digital dependencies. Driven by emerging technologies and ever more complex and interdependent systems, dramatic shifts in the coming decade will unlock new possibilities for human flourishing and prosperity while also multiplying the systemic risks posed by insecure systems.

Software and systems are growing more complex, providing value to companies and consumers but also increasing our collective insecurity. Too often, we are layering new functionality and technology onto already intricate and brittle systems at the expense of security and resilience. The widespread introduction of artificial intelligence systems—which can act in ways unexpected to even their own creators—is heightening the complexity and risk associated with many of our most important technological systems.

The Internet continues to connect individuals, businesses, communities, and countries on shared platforms that enable scaled business solutions and international exchange. But this accelerating global interconnectivity also introduces risks. An attack on one organization, sector, or state can rapidly spill over to other sectors and regions, as happened during Russia's 2017 "NotPetya" cyberattack on Ukraine, which spread across Europe, Asia, and the Americas, causing billions of dollars in damage. The potential cost of attacks like this will only grow as interdependencies increase.

Digital technologies increasingly touch the most sensitive aspects of our lives, providing convenience, but also creating new, often unforeseen risks. The COVID-19 pandemic has pushed us to live ever more deeply in a digital world. As our lives become intertwined with video and audio streaming, wearable devices, and biometric technologies, the quantity and intimacy of personal data collection is growing exponentially. Theft of that data is also growing rapidly, and opening up novel vectors for malicious actors to surveil, manipulate, and blackmail individuals.

Next-generation interconnectivity is collapsing the boundary between the digital and physical worlds, and exposing some of our most essential systems to disruption. Our factories, power grids, and water treatment facilities, among other essential infrastructure, are increasingly shedding old analog control systems and rapidly bringing online digital operational technology (OT). Advanced wireless technologies, IoT, and space-based assets—including those enabling positioning, navigation, and timing for civilian and military uses, environmental and weather monitoring, and everyday Internet-based activities from banking to telemedicine—will accelerate this trend, moving many of

our essential systems online and making cyberattacks inherently more destructive and impactful to our daily lives.

MALICIOUS ACTORS

Malicious cyber activity has evolved from nuisance defacement, to espionage and intellectual property theft, to damaging attacks against critical infrastructure, to ransomware attacks and cyber-enabled influence campaigns designed to undermine public trust in the foundation of our democracy. Once available only to a small number of well-resourced countries, offensive hacking tools and services, including foreign commercial spyware, are now widely accessible. These tools and services empower countries that previously lacked the ability to harm U.S. interests in cyberspace and enable a growing threat from organized criminal syndicates.

The governments of China, Russia, Iran, North Korea, and other autocratic states with revisionist intent are aggressively using advanced cyber capabilities to pursue objectives that run counter to our interests and broadly accepted international norms. Their reckless disregard for the rule of law and human rights in cyberspace is threatening U.S. national security and economic prosperity.

The People's Republic of China (PRC) now presents the broadest, most active, and most persistent threat to both government and private sector networks and is the only country with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to do so. Over the last ten years, it has expanded cyber operations beyond intellectual property theft to become our most advanced strategic competitor with the capacity to threaten U.S. interests and dominate emerging technologies critical to global development. Having successfully harnessed the Internet as the backbone of its surveillance state and influence capabilities, the PRC is exporting its vision of digital authoritarianism, striving to shape the global Internet in its image and imperiling human rights beyond its borders.

For more than two decades, the Russian government has used its cyber capabilities to destabilize its neighbors and interfere in the domestic politics of democracies around the world. Russia remains a persistent cyber threat as it refines its cyber espionage, attack, influence, and disinformation capabilities to coerce sovereign countries, harbor transnational criminal actors, weaken U.S. alliances and partnerships, and subvert the rules-based international system. Like its 2017 "NotPetya" attack, Russia's cyberattacks in support of its 2022 brutal and unprovoked invasion of Ukraine have resulted in irresponsible spillover impacts onto civilian critical infrastructure in other European countries.

The governments of Iran and the Democratic People's Republic of Korea (DPRK) are similarly growing in their sophistication and willingness to conduct malicious activity in cyberspace. Iran has used cyber capabilities to threaten U.S. allies in the Middle East and elsewhere, while the DPRK conducts cyber activities to generate revenue through criminal enterprises, such as through the theft of cryptocurrency, ransomware, and the deployment of surreptitious information technology (IT) workers for the purposes of fueling its nuclear ambitions. Further maturation of these capabilities could have significant impacts on U.S., allied, and partner interests.



The cyber operations of criminal syndicates now represent a threat to the national security, public safety, and economic prosperity of the United States and its allies and partners. Ransomware incidents have disrupted critical services and businesses across the country and around the world, from energy pipelines and food companies, to schools and hospitals. Total economic losses from ransomware attacks continue to climb, reaching billions of U.S. dollars annually. Criminal syndicates often operate out of states that do not cooperate with U.S. law enforcement and frequently encourage, harbor, or tolerate such activities. These and other malicious cyber activities continue to threaten Americans across society, including disproportionately affecting those without the resources necessary to protect themselves, recover, or seek recourse.

Our Approach: A Path to Resilience in Cyberspace

Deep and enduring collaboration between stakeholders across our digital ecosystem will be the foundation upon which we make it more inherently defensible, resilient, and aligned with U.S. values. This strategy seeks to build and enhance collaboration around five pillars: (1) Defend Critical Infrastructure, (2) Disrupt and Dismantle Threat Actors, (3) Shape Market Forces to Drive Security and Resilience, (4) Invest in a Resilient Future, and (5) Forge International Partnerships to Pursue Shared Goals. Each effort requires unprecedented levels of collaboration across its respective stakeholder communities, including the public sector, private industry, civil society, and international allies and partners. The pillars organizing this strategy articulate a vision of shared purpose and priorities for these communities, highlight challenges they face in achieving this vision, and identify strategic objectives around which to organize their efforts.

To realize the vision these pillars lay out, we will make **two fundamental shifts** in how the United States allocates roles, responsibilities, and resources in cyberspace. In realizing these shifts, we aspire not just to improve our defenses, but to change those underlying dynamics that currently contravene our interests.

Rebalance the Responsibility to Defend Cyberspace

The most capable and best-positioned actors in cyberspace must be better stewards of the digital ecosystem. Today, end users bear too great a burden for mitigating cyber risks. Individuals, small businesses, state and local governments, and infrastructure operators have limited resources and competing priorities, yet these actors' choices can have a significant impact on our national cybersecurity. A single person's momentary lapse in judgment, use of an outdated password, or errant click on a suspicious link should not have national security consequences. Our collective cyber resilience cannot rely on the constant vigilance of our smallest organizations and individual citizens.

Instead, across both the public and private sectors, we must ask more of the most capable and best-positioned actors to make our digital ecosystem secure and resilient. In a free and interconnected society, protecting data and assuring the reliability of critical systems must be the responsibility of the owners and operators of the systems that hold our data and make our society function, as well as



of the technology providers that build and service these systems. Government's role is to protect its own systems; to ensure private entities, particularly critical infrastructure, are protecting their systems; and to carry out core governmental functions such as engaging in diplomacy, collecting intelligence, imposing economic costs, enforcing the law, and, conducting disruptive actions to counter cyber threats. Together, industry and government must drive effective and equitable collaboration to correct market failures, minimize the harms from cyber incidents to society's most vulnerable, and defend our shared digital ecosystem.

Realign Incentives to Favor Long-Term Investments

Our economy and society must incentivize decision-making to make cyberspace more resilient and defensible over the long term. Balancing short-term imperatives against a long-term vision will be no easy task. We must defend the systems we have now, while investing in and building toward a future digital ecosystem that is more inherently defensible and resilient.

This strategy outlines how the Federal Government will use all tools available to reshape incentives and achieve unity of effort in a collaborative, equitable, and mutually beneficial manner. We must ensure that market forces and public programs alike reward security and resilience, build a robust and diverse cyber workforce, embrace security and resilience by design, strategically coordinate research and development investments in cybersecurity, and promote the collaborative stewardship of our digital ecosystem. To achieve these goals, the Federal Government will focus on points of leverage, where minimally invasive actions will produce the greatest gains in defensibility and systemic resilience.

The Federal Government is making generational investments in renewing our infrastructure, digitizing and decarbonizing our energy systems, securing our semiconductor supply chains, modernizing our cryptographic technologies, and rejuvenating our foreign and domestic policy priorities. The United States has an opportunity to rebalance the incentives necessary to lay a stronger, more resilient foundation on which to build the future of our digital ecosystem.

Building on Existing Policy

This strategy, while laying out a new approach to our cybersecurity, builds on significant achievements already shaping our strategic environment and digital ecosystem. In its first days, the Biden-Harris Administration assumed responsibility for managing the fallout from Russia's compromise of the SolarWinds Orion platform and the PRC's compromise of servers running Microsoft Exchange. The President elevated White House leadership on cybersecurity, appointing experienced, senior leaders in new positions at the National Security Council (NSC) and the Office of National Cyber Director (ONCD), and moved quickly to fold lessons learned from these and other incidents into executive actions.

These forward-leaning efforts have laid the foundation upon which this strategy is built. It was developed alongside the National Security Strategy and National Defense Strategy by a broad

interagency team and through a months-long consultation process with the private sector and civil society. It is informed by and implements the values of the DFI, the Freedom Online Coalition, and other long-standing efforts to realize a democratic vision for our digital ecosystem. It carries forward the foundational direction of Executive Order (EO) 14028, "Improving the Nation's Cybersecurity," National Security Memorandum (NSM) 5, "Improving Cybersecurity for Critical Infrastructure Control Systems," NSM 8, "Improving the Cybersecurity of National Security, Department of Defense (DoD), and Intelligence Community Systems," and other executive actions. It integrates cybersecurity into the once-in-a-generation new investments made by the Bipartisan Infrastructure Law, the Inflation Reduction Act, the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act, and EO 14017, "America's Supply Chains."

This strategy also builds on the work of prior administrations. It replaces the 2018 National Cyber Strategy but continues momentum on many of its priorities, including the collaborative defense of the digital ecosystem. The Administration remains committed to enhancing the security and resilience of U.S. space systems, including by implementing Space Policy Directive 5, "Cybersecurity Principles for Space Systems." The Administration also continues to implement critical efforts to secure next-generation technologies, including through the National Artificial Intelligence Initiative and the National Strategy to Secure 5G, among other existing policies and initiatives.

This strategy's goals for securing Federal systems and collaborating with the private sector build on EO 13800, "Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure," EO 13691, "Promoting Private Sector Cybersecurity Information Sharing," and EO 13636, "Improving Critical Infrastructure Cybersecurity," and fit within the frameworks established by Presidential Policy Directive 21, "Critical Infrastructure Security and Resilience," and Presidential Policy Directive 41, "United States Cyber Incident Coordination." It carries forward and evolves many of the strategic efforts originally initiated by the 2008 Comprehensive National Cybersecurity Initiative.

PILLAR ONE | DEFEND CRITICAL INFRASTRUCTURE

Defending the systems and assets that constitute our critical infrastructure is vital to our national security, public safety, and economic prosperity. The American people must have confidence in the availability and resilience of this infrastructure and the essential services it provides. We aim to operationalize an enduring and effective model of collaborative defense that equitably distributes risk and responsibility, and delivers a foundational level of security and resilience for our digital ecosystem.

Collaboration to address advanced threats will only be effective if owners and operators of critical infrastructure have cybersecurity protections in place to make it harder for adversaries to disrupt them. The Administration has established new cybersecurity requirements in certain critical sectors. In other sectors, new authorities will be required to set regulations that can drive better cybersecurity practices at scale. This Administration has conducted sector-specific engagement with industry to construct consistent, predictable regulatory frameworks for cybersecurity that focus on achieving security outcomes and enabling continuity of operations and functions, while promoting collaboration and innovation.

Private sector entities have made significant commitments to engage in collaborative defense efforts. The "Shields Up" campaign preceding Russia's 2022 brutal and unprovoked war on Ukraine, to proactively increase preparedness and promote effective measures to combat malicious activity, is an example of public-private collaboration that must be scaled and repeated.

We must build new and innovative capabilities that allow owners and operators of critical infrastructure, Federal agencies, product vendors and service providers, and other stakeholders to effectively collaborate with each other at speed and scale. Federal agencies that support critical infrastructure providers must enhance their own capabilities and their ability to collaborate with other Federal entities. When incidents occur, Federal response efforts must be coordinated and tightly integrated with private sector and State, local, Tribal, and territorial (SLTT) partners.

Finally, the Federal Government can better support the defense of critical infrastructure by making its own systems more defensible and resilient. This Administration is committed to improving Federal cybersecurity through long-term efforts to implement a zero trust architecture strategy and modernize IT and OT infrastructure. In doing so, Federal cybersecurity can be a model for critical infrastructure across the United States for how to successfully build and operate secure and resilient systems.



Strategic Objective 1.1: Establish Cybersecurity Requirements to Support National Security and Public Safety

The American people must have confidence in the critical services underpinning their lives and the nation's economy. While voluntary approaches to critical infrastructure cybersecurity have produced meaningful improvements, the lack of mandatory requirements has resulted in inadequate and inconsistent outcomes. Today's marketplace insufficiently rewards—and often disadvantages—the owners and operators of critical infrastructure who invest in proactive measures to prevent or mitigate the effects of cyber incidents.

Regulation can level the playing field, enabling healthy competition without sacrificing cybersecurity or operational resilience. Our strategic environment requires modern and nimble regulatory frameworks for cybersecurity tailored for each sector's risk profile, harmonized to reduce duplication, complementary to public-private collaboration, and cognizant of the cost of implementation. New and updated cybersecurity regulations must be calibrated to meet the needs of national security and public safety, in addition to the security and safety of individuals, regulated entities, and their employees, customers, operations, and data.

The Administration has made progress in this area, establishing cybersecurity requirements in key sectors such as oil and natural gas pipelines, aviation, and rail, led by the Transportation Security Administration and water systems, led by the Environmental Protection Agency. A collaborative process between industry and regulators will produce regulatory requirements that are operationally and commercially viable and will ensure the safe and resilient operation of critical infrastructure. The most effective and efficient regulatory frameworks will be those put in place well before a crisis, rather than through the imposition of emergency regulations after a crisis occurs.

Establish Cybersecurity Regulations to Secure Critical Infrastructure

The Federal Government will use existing authorities to set necessary cybersecurity requirements in critical sectors. Where Federal departments and agencies have gaps in statutory authorities to implement minimum cybersecurity requirements or mitigate related market failures, the Administration will work with Congress to close them. Where states or independent regulators have authorities that can be used to set cybersecurity requirements, the Administration will encourage them to use those authorities in a deliberate and coordinated manner.

Regulations should be performance-based, leverage existing cybersecurity frameworks, voluntary consensus standards, and guidance—including the Cybersecurity and Infrastructure Security Agency (CISA)'s Cybersecurity Performance Goals and the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity— and be agile enough to adapt as adversaries increase their capabilities and change their tactics. In setting cybersecurity regulations for critical infrastructure, regulators are encouraged to drive the adoption of secure-by-



design principles, prioritize the availability of essential services, and ensure that systems are designed to fail safely and recover quickly. Regulations will define minimum expected cybersecurity practices or outcomes, but the Administration encourages and will support further efforts by entities to exceed these requirements.

Further, these and other critical sectors rely upon the cybersecurity and resilience of their third-party service providers. Cloud-based services enable better and more economical cybersecurity practices at scale, but they are also essential to operational resilience across many critical infrastructure sectors. The Administration will identify gaps in authorities to drive better cybersecurity practices in the cloud computing industry and for other essential third-party services, and work with industry, Congress, and regulators to close them.

HARMONIZE AND STREAMLINE NEW AND EXISTING REGULATION

Effective regulations minimize the cost and burden of compliance, enabling organizations to invest resources in building resilience and defending their systems and assets. By leveraging existing international standards in a manner consistent with current policy and law, regulatory agencies can minimize the burden of unique requirements and reduce the need for regulatory harmonization.

Where Federal regulations are in conflict, duplicative, or overly burdensome, regulators must work together to minimize these harms. When necessary, the United States will pursue cross-border regulatory harmonization to prevent cybersecurity requirements from impeding digital trade flows. Where feasible, regulators should work to harmonize not only regulations and rules, but also assessments and audits of regulated entities. ONCD, in coordination with the Office of Management and Budget (OMB), will lead the Administration's efforts on cybersecurity regulatory harmonization. The Cyber Incident Reporting Council will coordinate, deconflict, and harmonize Federal incident reporting requirements.

ENABLE REGULATED ENTITIES TO AFFORD SECURITY

Different critical infrastructure sectors have varying capacities to absorb the costs of cybersecurity, ranging from low-margin sectors that cannot easily increase investment without intervention, to those where the marginal costs of improving cybersecurity can be absorbed. In some sectors, regulation may be necessary to create a level playing field so that companies are not trapped in a competition to underspend their peers on cybersecurity. In other sectors, regulators are encouraged to ensure that necessary investments in cybersecurity are incentivized through the rate-making process, tax structures, or other mechanisms. In setting new cybersecurity requirements, regulators are encouraged to consult with regulated entities to understand how those requirements will be resourced. In seeking new regulatory authority, the Administration will work with Congress to develop regulatory frameworks that take into account the resources necessary to implement them.

Strategic Objective 1.2: Scale Public-Private Collaboration

Defending critical infrastructure against adversarial activity and other threats requires a model of cyber defense that emulates the distributed structure of the Internet. We will realize this distributed, networked model by developing and strengthening collaboration between defenders through structured roles and responsibilities and increased connectivity enabled by the automated exchange of data, information, and knowledge. Combining organizational collaboration and technology-enabled connectivity will create a trust-based "network of networks" that builds situational awareness and drives collective and synchronized action among the cyber defenders that protect our critical infrastructure.

CISA is the national coordinator for critical infrastructure security and resilience. In this role, CISA coordinates with Sector Risk Management Agencies (SRMAs) to enable the Federal Government to scale its coordination with critical infrastructure owners and operators across the United States. SRMAs have day-to-day responsibility and sector-specific expertise to improve security and resilience within their sectors. In turn, SRMAs support individual owners and operators in their respective sectors who are responsible for protecting the systems and assets they operate. Information sharing and analysis organizations (ISAOs), sector-focused information sharing and analysis centers (ISACs), and similar organizations facilitate cyber defense operations across vast and complex sectors.

The Federal Government will continue to enhance coordination between CISA and other SRMAs, invest in the development of SRMA capabilities, and otherwise enable SRMAs to proactively respond to the needs of critical infrastructure owners and operators in their sectors. The Federal Government will collaborate with industry to define sector-by-sector needs and assess gaps in current SRMA capabilities. Investment by the Federal Government in building out the capabilities of SRMAs will enable security and resilience improvements across critical infrastructure. SRMAs will coordinate with CISA to improve their ability to be proactive and responsive to the needs of their sectors. SRMAs must also continue to support the maturation of third-party collaboration mechanisms. Building on decades of experience collaborating with ISACs and ISAOs, the Federal Government will work with these and other groups to develop a shared vision of how this model should evolve.

Accelerating operational collaboration will require the use of technology solutions to share information and coordinate defensive efforts. We must complement human-to-human collaboration efforts with machine-to-machine data sharing and security orchestration. Realizing this model will enable real-time, actionable, and multi-directional sharing to drive threat response at machine speed. In partnership with the private sector, CISA and SRMAs will explore technical and organizational mechanisms to enhance and evolve machine-to-machine sharing of data. The Federal Government will also deepen operational and strategic collaboration with software, hardware, and managed service providers with the capability to reshape the cyber landscape in favor of greater security and resilience.

Strategic Objective 1.3: Integrate Federal Cybersecurity Centers

The Federal Government must coordinate the authorities and capabilities of the departments and agencies that are collectively responsible for supporting the defense of critical infrastructure. Federal Cybersecurity Centers serve as collaborative nodes that fuse together whole-of-government capabilities across the homeland defense, law enforcement, intelligence, diplomatic, economic, and military missions. Once fully integrated, they will drive intragovernmental coordination and enable the Federal Government to effectively and decisively support non-Federal partners.

The Administration has made progress toward this goal, establishing the Joint Cyber Defense Collaborative (JCDC) at CISA to integrate cyber defense planning and operations across the Federal Government and with the private sector and international partners; strengthening the capabilities of the National Cyber Investigative Joint Task Force (NCIJTF) to coordinate law enforcement and other disruption actions; and revitalizing the Cyber Threat Intelligence Integration Center's (CTIIC) role in coordinating intelligence collection, analysis, and partnerships.

Operational collaboration models at SRMAs, such as the Department of Energy (DOE)'s Energy Threat Analysis Center (ETAC) pilot, DoD's Defense Industrial Base Collaborative Information Sharing Environment (DCISE), and the National Security Agency (NSA)'s Cybersecurity Collaboration Center provide opportunities to enable timely, actionable, and relevant information sharing directly with private sector partners in their respective sectors.

Further efforts will be required to strengthen and integrate the Federal Government's operational capabilities and improve integration of the Federal Cybersecurity Centers. ONCD will lead the Administration's efforts to enhance the integration of centers such as these, identify gaps in capabilities, and develop an implementation plan to enable collaboration at speed and scale.

Strategic Objective 1.4: Update Federal Incident Response Plans and Processes

The private sector is capable of mitigating most cyber incidents without direct Federal assistance. When Federal assistance is required, the Federal Government must present a unified, coordinated, whole-of-government response. Organizations targeted by cyber threats must know which government agencies to contact for what purposes. The Federal Government must provide clear guidance on how private sector partners can reach Federal agencies for support during cyber incidents and what forms of support the Federal Government may provide.

Consistent with Presidential Policy Directive 41, "United States Cyber Incident Coordination,"—which defines lead roles for the Department of Justice (DOJ), Department of Homeland Security (DHS), and the Office of the Director of National Intelligence in threat, asset, and intelligence



response efforts, respectively—CISA will lead a process to update the subordinate National Cyber Incident Response Plan (NCIRP) to strengthen processes, procedures, and systems to more fully realize the policy that "a call to one is a call to all." When any Federal agency receives a request for assistance, the agency will know what support the wider Federal Government can provide, how to contact the right Federal agencies that can provide such support, and have access to effective information sharing mechanisms. Because most Federal responses take place through field offices, the NCIRP will bolster coordination at the local level, taking lessons from the successes of the Joint Terrorism Task Forces.

When incidents do occur, the Cyber Incident Reporting for Critical Infrastructure Act of 2022 (CIRCIA) will enhance our awareness and ability to respond effectively. CIRCIA will require covered entities in critical infrastructure sectors to report covered cyber incidents to CISA within hours. These timely notifications and CISA's rapid sharing of relevant information with DOJ and other incident response stakeholders will strengthen our collective defense, improve efforts to identify the root causes of incidents, and inform decision-making within government on how to respond. CISA will consult with SRMAs, DOJ, and other Federal agencies during the CIRCIA rule-making and implementation process to integrate incident reporting systems and ensure real-time sharing and actioning of all relevant incident information.

Following major incidents, we will ensure that the cybersecurity community benefits from lessons learned through the Cyber Safety Review Board (CSRB). Established by EO 14028, "Improving the Nation's Cybersecurity," the CSRB brings together public and private sector cybersecurity leaders to review major cyber incidents, conduct authoritative fact-finding, generate insights that will inform and guide industry remediations, and provide recommendations for improving the nation's cybersecurity posture going forward. The Administration will work with Congress to pass legislation to codify the CSRB within DHS and provide it the authorities it needs to carry out comprehensive reviews of significant incidents.

Strategic Objective 1.5: Modernize Federal Defenses

The Federal Government requires secure and resilient information, communications, and operational technology and services to perform its duties. In its first months, this Administration set a new strategic direction for Federal cybersecurity, publishing EO 14028, "Improving the Nation's Cybersecurity," which led to the release of NSM 8, "Improving the Cybersecurity of National Security, the Defense Department, and Intelligence Community Systems," and the OMB Federal zero trust architecture strategy.

Building on this momentum, the Administration will drive long-term efforts to defend the Federal enterprise and modernize Federal systems in accordance with zero trust principles that acknowledge threats must be countered both inside and outside traditional network boundaries. By making its

own networks more defensible and resilient, the Federal Government will be a model for private sector emulation.

COLLECTIVELY DEFEND FEDERAL CIVILIAN AGENCIES

Federal civilian executive branch (FCEB) agencies are responsible for managing and securing their own IT and OT systems. With different agency structures, missions, capabilities, and resourcing, FCEB cybersecurity outcomes vary. We must continue to build a model for Federal cybersecurity that balances the individual authorities and capabilities of agencies with the security benefits achieved through a collective approach to defense.

We will continue to build Federal cohesion through focused action across the Federal Government. OMB, in coordination with CISA, will develop a plan of action to secure FCEB systems through collective operational defense, expanded availability of centralized shared services, and software supply chain risk mitigation. These efforts will build on prior programs and prioritize actions that advance a whole-of-government approach to defending FCEB information systems. The software supply chain risk mitigation objective, developed in coordination with NIST, will build on the implementation of EO 14028, "Improving the Nation's Cybersecurity," including the Software Bills of Material (SBOM) efforts, NIST's Secure Software Development Framework, and related efforts to improve open-source software security.

MODERNIZE FEDERAL SYSTEMS

The Federal Government must replace or update IT and OT systems that are not defensible against sophisticated cyber threats. The OMB zero trust architecture strategy directs FCEB agencies to implement multi-factor authentication, encrypt their data, gain visibility into their entire attack surface, manage authorization and access, and adopt cloud security tools. These and other cybersecurity goals cannot be achieved unless Federal IT and OT systems are modernized so they are capable of leveraging critical security technologies. OMB will lead development of a multi-year lifecycle plan to accelerate FCEB technology modernization, prioritizing Federal efforts on eliminating legacy systems which are costly to maintain and difficult to defend. The plan will identify milestones to remove all legacy systems incapable of implementing our zero trust architecture strategy within a decade, or otherwise mitigate risks to those that cannot be replaced in that timeframe. Replacing legacy systems with more secure technology, including through accelerating migration to cloud-based services, will elevate the cybersecurity posture across the Federal Government and, in turn, improve the security and resilience of the digital services it provides to the American people.

DEFEND NATIONAL SECURITY SYSTEMS

National security systems (NSS) store and process some of the Federal Government's most sensitive data and must be secured against a wide range of cyber and physical threats, including insider threats, cyber criminals, and the most sophisticated nation-state adversaries. The Director of the NSA, as the National Manager for NSS, will coordinate with OMB to develop a plan for NSS at FCEB agencies that ensures implementation of the enhanced cybersecurity requirements of NSM-8.

PILLAR TWO | DISRUPT AND DISMANTLE THREAT ACTORS

The United States will use all instruments of national power to disrupt and dismantle threat actors whose actions threaten our interests. These efforts may integrate diplomatic, information, military (both kinetic and cyber), financial, intelligence, and law enforcement capabilities. Our goal is to make malicious actors incapable of mounting sustained cyber-enabled campaigns that would threaten the national security or public safety of the United States.

Coordinated efforts by Federal and non-Federal entities have proven effective in frustrating the malicious cyber activity of foreign government, criminal, and other threat actors. The Federal Government has increased its capacity to respond to cyber incidents; arrested and successfully prosecuted transnational cybercriminals and state-sponsored actors; imposed sanctions on malicious cyber actors, including bans on travel and denying access to money service providers; and deprived threat actors of access to digital infrastructure and victim networks. The Federal Government has also targeted financial infrastructure used for illicit activity; established new diplomatic initiatives attributing disruptive, destructive, or otherwise destabilizing cyber activities to hold actors accountable for their malicious behavior; and recovered billions of dollars' worth of ill-gotten assets.

We will build upon these successes to enable more sustained and effective disruption of adversaries. Our efforts will require greater collaboration by public and private sector partners to improve intelligence sharing, execute disruption campaigns at scale, deny adversaries use of U.S.-based infrastructure, and thwart global ransomware campaigns.

STRATEGIC OBJECTIVE 2.1: INTEGRATE FEDERAL DISRUPTION ACTIVITIES

Disruption campaigns must become so sustained and targeted that criminal cyber activity is rendered unprofitable and foreign government actors engaging in malicious cyber activity no longer see it as an effective means of achieving their goals. DOJ and other Federal law enforcement agencies have pioneered the integrated deployment of domestic legal authorities with private industry and international allies and partners to disrupt online criminal infrastructure and resources, from taking down notorious botnets to seizing cryptocurrency gleaned from ransomware and fraud campaigns. Information generated from these investigations enables other efforts, such as victim notification, issuance of cybersecurity advisories, private-sector actions, sanctions designations, diplomatic actions, and intelligence operations.

The Department of Defense's strategic approach of defending forward has helped generate insights on threat actors, identify and expose malware, and disrupt malicious activity before it could affect its intended targets. Informed by lessons learned and the rapidly-evolving threat environment, DoD will develop an updated departmental cyber strategy aligned with the National Security Strategy,



National Defense Strategy, and this National Cybersecurity Strategy. DoD's new strategy will clarify how U.S. Cyber Command and other DoD components will integrate cyberspace operations into their efforts to defend against state and non-state actors capable of posing strategic-level threats to U.S. interests, while continuing to strengthen their integration and coordination of operations with civilian, law enforcement, and intelligence partners to disrupt malicious activity at scale.

To increase the volume and speed of these integrated disruption campaigns, the Federal Government must further develop technological and organizational platforms that enable continuous, coordinated operations. The NCIJTF, as a multi-agency focal point for coordinating whole-of-government disruption campaigns, will expand its capacity to coordinate takedown and disruption campaigns with greater speed, scale, and frequency. Similarly, DoD and the Intelligence Community are committed to bringing to bear their full range of complementary authorities to disruption campaigns.

Strategic Objective 2.2: Enhance Public-Private Operational Collaboration to Disrupt Adversaries

The private sector has growing visibility into adversary activity. This body of insight is often broader and more detailed than that of the Federal Government, due in part to the sheer scale of the private sector and its threat hunting operations, but also due to the rapid pace of innovation in tooling and capabilities. Effective disruption of malicious cyber activity requires more routine collaboration between the private sector entities that have unique insights and capabilities and the Federal agencies that have the means and authorities to act. The 2021 takedown of the Emotet botnet showed the potential of this collaborative approach, with Federal agencies, international allies and partners, and private industry cooperating to disrupt the botnet's operations. Given the interest of the cybersecurity community and digital infrastructure owners and operators in continuing this approach, we must sustain and expand upon this model so that collaborative disruption operations can be carried out on a continuous basis.

Private sector partners are encouraged to come together and organize their efforts through one or more nonprofit organizations that can serve as hubs for operational collaboration with the Federal Government, such as the National Cyber-Forensics and Training Alliance (NCFTA). Threat-specific collaboration should take the form of nimble, temporary cells, comprised of a small number of trusted operators, hosted and supported by a relevant hub. Using virtual collaboration platforms, members of the cell would share information bidirectionally and work rapidly to disrupt adversaries. The Federal Government will rapidly overcome barriers to supporting and leveraging this collaboration model, such as security requirements and records management policy.

Strategic Objective 2.3: Increase the Speed and Scale of Intelligence Sharing and Victim Notification

The timely sharing of threat intelligence between Federal and non-Federal partners enhances collaborative efforts to disrupt and dismantle adversaries. Open-source cybersecurity intelligence and private sector intelligence providers have greatly increased collective awareness of cyber threats, but national intelligence that only the government can collect remains invaluable. For instance, the NSA Cybersecurity Collaboration Center's national intelligence-driven engagement with industry has been highly effective at disrupting adversary activity targeting the Defense Industrial Base. Similarly, CISA enables persistent, multi-directional threat information sharing with the private sector through the JCDC and, in coordination with the FBI, uses that information to accelerate victim notification and to reduce the impact of identified intrusions.

The Federal Government will increase the speed and scale of cyber threat intelligence sharing to proactively warn cyber defenders and notify victims when the government has information that an organization is being actively targeted or may already be compromised. SRMAs, in coordination with CISA, law enforcement agencies, and the CTIIC, will identify intelligence needs and priorities within their sector and develop processes to share warnings, technical indicators, threat context, and other relevant information with both government and non-government partners. These processes must provide mechanisms for the private sector to provide timely feedback and their own threat intelligence to the Federal Government to improve targeting of cyber threats for disruption and further intelligence collection. The Federal Government will also review declassification policies and processes to determine the conditions under which extending additional classified access and expanding clearances is necessary to provide actionable intelligence to owners and operators of critical infrastructure.

Strategic Objective 2.4: Prevent Abuse of U.S.-Based Infrastructure

Malicious cyber actors exploit U.S.-based cloud infrastructure, domain registrars, hosting and email providers, and other digital services to carry out criminal activity, malign influence operations, and espionage against individual victims, businesses, governments, and other organizations in the United States and abroad. Often, these services are leased through foreign resellers who have multiple degrees of separation from their U.S.-based providers, hindering the ability of those providers to address abuse complaints or respond to legal process from U.S. authorities. The Federal Government will work with cloud and other internet infrastructure providers to quickly identify malicious use of U.S.-based infrastructure, share reports of malicious use with the government, make it easier for victims to report abuse of these systems, and make it more difficult for malicious actors to gain access to these resources in the first place.

All service providers must make reasonable attempts to secure the use of their infrastructure against abuse or other criminal behavior. The Administration will prioritize adoption and enforcement of a risk-based approach to cybersecurity across Infrastructure-as-a-Service providers that addresses known methods and indicators of malicious activity including through implementation of EO 13984, "Taking Additional Steps to Address the National Emergency with Respect to Significant Malicious Cyber-Enabled Activities." Implementation of this order will make it more difficult for adversaries to abuse U.S.-based infrastructure while safeguarding individual privacy.

Strategic Objective 2.5: Counter Cybercrime, Defeat Ransomware

Ransomware is a threat to national security, public safety, and economic prosperity. Ransomware operators have disrupted hospitals, schools, pipeline operations, government services, and other critical infrastructure and essential services. Operating from safe havens like Russia, Iran, and North Korea, ransomware actors exploit poor cybersecurity practices to take control of victim networks and rely on cryptocurrencies to receive extortion payments and launder their proceeds.

Given ransomware's impact on key critical infrastructure services, the United States will employ all elements of national power to counter the threat along four lines of effort: (1) leveraging international cooperation to disrupt the ransomware ecosystem and isolate those countries that provide safe havens for criminals; (2) investigating ransomware crimes and using law enforcement and other authorities to disrupt ransomware infrastructure and actors; (3) bolstering critical infrastructure resilience to withstand ransomware attacks; and (4) addressing the abuse of virtual currency to launder ransom payments.

As ransomware is a borderless challenge requiring international cooperation, the White House has convened the Counter-Ransomware Initiative (CRI) with participation from more than thirty countries. The CRI has conducted global exercises to build resilience and, as of January 2023, launched an international counter ransomware task force, led by Australia, to share information regarding the actors and infrastructure conducting ransomware attacks that will support and further accelerate CRI member countries' existing, often coordinated disruption efforts. The CRI will also drive synchronization of policy and diplomatic efforts across its members.

The Administration is committed to mounting disruption campaigns and other efforts that are so sustained, coordinated, and targeted that they render ransomware no longer profitable. The Joint Ransomware Task Force (JRTF), co-chaired by CISA and the Federal Bureau of Investigation (FBI), will coordinate, deconflict, and synchronize existing interagency efforts to disrupt ransomware operations and provide support to private sector and SLTT efforts to increase their protections against ransomware.

Our approach will also include targeting the illicit cryptocurrency exchanges on which ransomware operators rely and improving international implementation of standards for combatting virtual asset illicit finance. The United States subjects financial institutions offering covered services in

cryptocurrencies to Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) controls, and the Department of the Treasury, the Secret Service, DOJ, the FBI, and private sector partners are collaborating to trace and interdict ransomware payments. The CRI has gained the commitment of members to implement international AML/CFT standards, including know-your-customer (KYC) rules, to make it harder for ransomware actors to launder cryptocurrency proceeds from attacks. Over the long term, the United States will support implementation of international AML/CFT standards globally to mitigate the use of cryptocurrencies for illicit activities that undermine our national interest as part of our efforts to implement EO 14067, "Ensuring Responsible Development of Digital Assets."

Ultimately, the most effective way to undermine the motivation of these criminal groups is to reduce the potential for profit. For this reason, the Administration strongly discourages the payment of ransoms. At the same time, victims of ransomware – whether or not they choose to pay a ransom - should report the incident to law enforcement and other appropriate agencies. These reports enhance the Federal Government's ability to provide victim support, to prevent further use of cryptocurrencies to evade AML/CFT controls, and to reduce the likelihood that future ransomware attacks will be successful.

PILLAR THREE | SHAPE MARKET FORCES TO DRIVE SECURITY AND RESILIENCE

To build the secure and resilient future we want, we must shape market forces to place responsibility on those within our digital ecosystem that are best positioned to reduce risk. We will shift the consequences of poor cybersecurity away from the most vulnerable, making our digital ecosystem more worthy of trust. In this effort, we will not replace or diminish the role of the market, but channel market forces productively toward keeping our country resilient and secure. Our goal is a modern digital economy that promotes practices that enhance the security and resilience of our digital ecosystem while preserving innovation and competition.

Continued disruptions of critical infrastructure and thefts of personal data make clear that market forces alone have not been enough to drive broad adoption of best practices in cybersecurity and resilience. In too many cases, organizations that choose not to invest in cybersecurity negatively and unfairly impact those that do, often disproportionately impacting small businesses and our most vulnerable communities. While market forces remain the first, best route to agile and effective innovation, they have not adequately mobilized industry to prioritize our core economic and national security interests.

To address these challenges, the Administration will shape the long-term security and resilience of the digital ecosystem, against both today's threats and tomorrow's challenges. We must hold the stewards of our data accountable for the protection of personal data; drive the development of more secure connected devices; and reshape laws that govern liability for data losses and harm caused by cybersecurity errors, software vulnerabilities, and other risks created by software and digital technologies. We will use Federal purchasing power and grant-making to incentivize security. And we will explore how the government can stabilize insurance markets against catastrophic risk to drive better cybersecurity practices and to provide market certainty when catastrophic events do occur.

STRATEGIC OBJECTIVE 3.1: HOLD THE STEWARDS OF OUR DATA ACCOUNTABLE

Securing personal data is a foundational aspect to protecting consumer privacy in a digital future. Data-driven technologies have transformed our economy and offer convenience for consumers. But the dramatic proliferation of personal information expands the threat environment and increases the impact of data breaches on consumers. When organizations that have data on individuals fail to act as responsible stewards for this data, they externalize the costs onto everyday Americans. Often, the greatest harm falls upon the vulnerable populations for whom risks to their personal data can produce disproportionate harms.



The Administration supports legislative efforts to impose robust, clear limits on the ability to collect, use, transfer, and maintain personal data and provide strong protections for sensitive data like geolocation and health information. This legislation should also set national requirements to secure personal data consistent with standards and guidelines developed by NIST. By providing privacy requirements that evolve with threats, the United States can pave the way for a more secure future.

Strategic Objective 3.2: Drive the Development of Secure IoT Devices

Internet of Things (IoT) devices, including both consumer goods like fitness trackers and baby monitors, as well as industrial control systems and sensors, introduce new sources of connectivity in our homes and businesses. However, many of the IoT devices deployed today are not sufficiently protected against cybersecurity threats. Too often they have been deployed with inadequate default settings, can be difficult or impossible to patch or upgrade, or come equipped with advanced—and sometimes unnecessary—capabilities that enable malicious cyber activities on critical physical and digital systems. Recent IoT vulnerabilities have shown just how easily bad actors can exploit these devices to construct botnets and conduct surveillance.

The Administration will continue to improve IoT cybersecurity through Federal research and development (R&D), procurement, and risk management efforts, as directed in the IoT Cybersecurity Improvement Act of 2020. In addition, the Administration will continue to advance the development of IoT security labeling programs, as directed under EO 14028, "Improving the Nation's Cybersecurity." Through the expansion of IoT security labels, consumers will be able to compare the cybersecurity protections offered by different IoT products, thus creating a market incentive for greater security across the entire IoT ecosystem.

Strategic Objective 3.3: Shift Liability for Insecure Software Products and Services

Markets impose inadequate costs on—and often reward—those entities that introduce vulnerable products or services into our digital ecosystem. Too many vendors ignore best practices for secure development, ship products with insecure default configurations or known vulnerabilities, and integrate third-party software of unvetted or unknown provenance. Software makers are able to leverage their market position to fully disclaim liability by contract, further reducing their incentive to follow secure-by-design principles or perform pre-release testing. Poor software security greatly increases systemic risk across the digital ecosystem and leave American citizens bearing the ultimate cost.

We must begin to shift liability onto those entities that fail to take reasonable precautions to secure their software while recognizing that even the most advanced software security programs cannot



prevent all vulnerabilities. Companies that make software must have the freedom to innovate, but they must also be held liable when they fail to live up to the duty of care they owe consumers, businesses, or critical infrastructure providers. Responsibility must be placed on the stakeholders most capable of taking action to prevent bad outcomes, not on the end-users that often bear the consequences of insecure software nor on the open-source developer of a component that is integrated into a commercial product. Doing so will drive the market to produce safer products and services while preserving innovation and the ability of startups and other small- and medium-sized businesses to compete against market leaders.

The Administration will work with Congress and the private sector to develop legislation establishing liability for software products and services. Any such legislation should prevent manufacturers and software publishers with market power from fully disclaiming liability by contract, and establish higher standards of care for software in specific high-risk scenarios. To begin to shape standards of care for secure software development, the Administration will drive the development of an adaptable safe harbor framework to shield from liability companies that securely develop and maintain their software products and services. This safe harbor will draw from current best practices for secure software development, such as the NIST Secure Software Development Framework. It also must evolve over time, incorporating new tools for secure software development, software transparency, and vulnerability discovery.

To further incentivize the adoption of secure software development practices, the Administration will encourage coordinated vulnerability disclosure across all technology types and sectors; promote the further development of SBOMs; and develop a process for identifying and mitigating the risk presented by unsupported software that is widely used or supports critical infrastructure. In partnership with the private sector and the open-source software community, the Federal Government will also continue to invest in the development of secure software, including memory-safe languages and software development techniques, frameworks, and testing tools.

Strategic Objective 3.4: Use Federal Grants and Other Incentives to Build in Security

Federal grant programs offer strategic opportunities to make investments in critical infrastructure that are designed, developed, fielded, and maintained with cybersecurity and all-hazards resilience in mind. Through programs funded by the Bipartisan Infrastructure Law, the Inflation Reduction Act, and the CHIPS and Science Act, the United States is making once-in-a-generation investments in our infrastructure and the digital ecosystem that supports it. This Administration is committed to making investments in a manner that increases our collective systemic resilience.

The Federal Government will collaborate with SLTT entities, the private sector, and other partners to balance cybersecurity requirements for applicants with technical assistance and other forms of support. Together, we can drive investment in critical products and services that are secure- and resilient-by-design, and sustain and incentivize security and resilience throughout the lifecycle of

critical infrastructure. The Federal Government will also prioritize funding for cybersecurity research, development, and demonstration (RD&D) programs aimed at strengthening critical infrastructure cybersecurity and resilience. And, the Administration will work with Congress to develop other incentive mechanisms to drive better cybersecurity practices at scale.

Strategic Objective 3.5: Leverage Federal Procurement to Improve Accountability

Contracting requirements for vendors that sell to the Federal Government have been an effective tool for improving cybersecurity. EO 14028, "Improving the Nation's Cybersecurity," expands upon this approach, ensuring that contract requirements for cybersecurity are strengthened and standardized across Federal agencies. Continuing to pilot new concepts for setting, enforcing, and testing cybersecurity requirements through procurement can lead to novel and scalable approaches.

When companies make contractual commitments to follow cybersecurity best practices to the Federal Government, they must live up to them. The Civil Cyber-Fraud Initiative (CCFI) uses DOJ authorities under the False Claims Act to pursue civil actions against government grantees and contractors who fail to meet cybersecurity obligations. The CCFI will hold accountable entities or individuals that put U.S. information or systems at risk by knowingly providing deficient cybersecurity products or services, knowingly misrepresenting their cybersecurity practices or protocols, or knowingly violating obligations to monitor and report cyber incidents and breaches.

Strategic Objective 3.6: Explore a Federal Cyber Insurance Backstop

When catastrophic incidents occur, it is a government responsibility to stabilize the economy and provide certainty in uncertain times. In the event of a catastrophic cyber incident, the Federal Government could be called upon to stabilize the economy and aid recovery. Structuring that response before a catastrophic event occurs—rather than rushing to develop an aid package after the fact—could provide certainty to markets and make the nation more resilient. The Administration will assess the need for and possible structures of a Federal insurance response to catastrophic cyber events that would support the existing cyber insurance market. In developing this assessment, the Administration will seek input from, and consult with, Congress, state regulators, and industry stakeholders.

PILLAR FOUR | INVEST IN A RESILIENT FUTURE

A resilient and flourishing digital future tomorrow begins with investments made today. We can build a more secure, resilient, privacy-preserving, and equitable digital ecosystem through strategic investments and coordinated, collaborative action. In doing so, the United States will maintain its leading role as the world's foremost innovator in secure and resilient next-generation technologies and infrastructure.

Foundational elements of our digital ecosystem, like the Internet, are products of sustained and mutually-supporting investments by both public and private sector entities. However, public and private investments in cybersecurity have long trailed the threats and challenges we face. As we build a new generation of digital infrastructure, from next-generation telecommunications and IoT to distributed energy resources, and prepare for revolutionary changes in our technology landscape brought by artificial intelligence and quantum computing, the need to address this investment gap has grown more urgent.

The Federal Government must leverage strategic public investments in innovation, R&D, and education to drive outcomes that are economically sustainable and serve the national interest. We will leverage the National Science Foundation's (NSF) Regional Innovation Engines program, long-standing Secure and Trustworthy Cyberspace program; new grant programs and funding opportunities established in the Bipartisan Infrastructure Law, Inflation Reduction Act, and CHIPS and Science Act; Manufacturing Institutes; and other elements of the Federal research and development enterprise.

These investments will assure continued U.S. leadership in technology and innovation as part of a modern industrial and innovation strategy. Decades of adversaries and malicious actors weaponizing our technology and innovation against us—to steal our intellectual property, interfere in or influence our electoral process, and undercut our national defenses—has demonstrated that leadership in innovation without security is not enough. We will complement our efforts to out-innovate other countries with focused, coordinated action to optimize critical and emerging technologies for cybersecurity as they are developed and deployed. We will ensure that resilience is not a discretionary element of new technical capabilities but a commercially viable element of the innovation and deployment process.

STRATEGIC OBJECTIVE 4.1: SECURE THE TECHNICAL FOUNDATION OF THE INTERNET

The Internet is critical to our future but retains the fundamental structure of its past. Many of the technical foundations of the digital ecosystem are inherently vulnerable. Every time we build something new on top of this foundation, we add new vulnerabilities and increase our collective risk

exposure. We must take steps to mitigate the most urgent of these pervasive concerns such as Border Gateway Protocol vulnerabilities, unencrypted Domain Name System requests, and the slow adoption of IPv6. Such a "clean-up" effort to reduce systemic risk requires identification of the most pressing of these security challenges, further development of effective security measures, and close collaboration between public and private sectors to reduce our risk exposure without disrupting the platforms and services built atop this infrastructure. The Federal Government will lead by ensuring that its networks have implemented these and other security measures while partnering with stakeholders to develop and drive adoption of solutions that will improve the security of the Internet ecosystem and support research to understand and address reasons for slow adoption.

Preserving and extending the open, free, global, interoperable, reliable, and secure Internet requires sustained engagement in standards development processes to instill our values and ensure that technical standards produce technologies that are more secure and resilient. As autocratic regimes seek to change the Internet and its multistakeholder foundation to enable government control, censorship, and surveillance, the United States and its foreign and private sector partners will implement a multi-pronged strategy to preserve technical excellence, protect our security, drive economic competitiveness, promote digital trade, and ensure that the "rules of the road" for technology standards favor principles of transparency, openness, consensus, relevance, and coherence. By supporting non-governmental Standards Developing Organizations (SDOs), the United States will partner with industry leaders, international allies, academic institutions, professional societies, consumer groups, and nonprofits, to secure emerging technologies, enable interoperability, foster global market competition, and protect our national security and economic advantage.

Strategic Objective 4.2: Reinvigorate Federal Research and Development for Cybersecurity

Through Federal efforts to prioritize research and development in defensible and resilient architectures and reduce vulnerabilities in underlying technologies, we can ensure that the technologies of tomorrow are more secure than those of today.

As part of the update to the Federal Cybersecurity Research and Development Strategic Plan, the Federal Government will identify, prioritize, and catalyze the research, development, and demonstration (RD&D) community to proactively prevent and mitigate cybersecurity risks in existing and next generation technologies. Departments and agencies will direct RD&D projects to advance cybersecurity and resilience in areas such as artificial intelligence, operational technologies and industrial control systems, cloud infrastructure, telecommunications, encryption, system transparency, and data analytics used in critical infrastructure. These efforts will be supported by the Federal RD&D enterprise, including the NSF, DOE National Laboratories, and other Federally funded research and development centers (FFRDCs), and through partnerships with academia, manufacturers, technology companies, and owners and operators.

These RD&D investments will focus on securing three families of technologies that will prove decisive for U.S. leadership in the coming decade: computing-related technologies, including microelectronics, quantum information systems, and artificial intelligence; biotechnologies and biomanufacturing; and clean energy technologies. This effort will facilitate the proactive identification of potential vulnerabilities, as well as the research to mitigate them. It will also support a larger modern industrial and innovation strategy to promote coordinated and strategic innovation and create markets for trustworthy products and services by comprehensively leveraging Federal investment vehicles, Federal purchasing power, and Federal regulations.

Strategic Objective 4.3: Prepare for Our Post-Quantum Future

Strong encryption is foundational to cybersecurity and global commerce. It is the primary way we protect our data online, validate end users, authenticate signatures, and certify the accuracy of information. But quantum computing has the potential to break some of the most ubiquitous encryption standards deployed today. We must prioritize and accelerate investments in widespread replacement of hardware, software, and services that can be easily compromised by quantum computers so that information is protected against future attacks.

To balance the promotion and advancement of quantum computing against threats posed to digital systems, NSM 10, "Promoting United States Leadership in Quantum Computing While Mitigating Risks to Vulnerable Cryptographic Systems," establishes a process for the timely transition of the country's cryptographic systems to interoperable quantum-resistant cryptography. The Federal Government will prioritize the transition of vulnerable public networks and systems to quantum-resistant cryptography-based environments and develop complementary mitigation strategies to provide cryptographic agility in the face of unknown future risks. The private sector should follow the government's model in preparing its own networks and systems for our post-quantum future.

Strategic Objective 4.4: Secure Our Clean Energy Future

Our accelerating national transition to a clean energy future is bringing online a new generation of interconnected hardware and software systems that have the potential to strengthen the resiliency, safety, and efficiency of the U.S. electric grid. These technologies, including distributed energy resources, "smart" energy generation and storage devices, advanced cloud-based grid management platforms, and transmission and distribution networks designed for high-capacity controllable loads are far more sophisticated, automated, and digitally interconnected than prior generations of grid systems.

★ ★ ★ ★ ★ ★

As the United States makes a generational investment in new energy infrastructure, the Administration will seize this strategic opportunity to build in cybersecurity proactively through implementation of the Congressionally-directed National Cyber-Informed Engineering Strategy, rather than developing a patchwork of security controls after these connected devices are widely deployed. The Administration is coordinating the work of stakeholders across the Federal Government, industry, and SLTT to deploy a secure, interoperable network of electric vehicle chargers, zero-emission fueling infrastructure, and zero-emission transit and school buses. DOE, through efforts such as the Clean Energy Cybersecurity Accelerator (CECA) and the Bipartisan Infrastructure Law-directed Energy Cyber Sense program, and the National Labs are leading the government's effort to secure the clean energy grid of the future and generating security best practices that extend to other critical infrastructure sectors. DOE will also continue to promote cybersecurity for electric distribution and distributed energy resources in partnership with industry, States, Federal regulators, Congress, and other agencies.

Strategic Objective 4.5: Support Development of a Digital Identity Ecosystem

Enhanced digital identity solutions and infrastructure can enable a more innovative, equitable, safe and efficient digital economy. These solutions can support easier and more secure access to government benefits and services, trusted communication and social networks, and new possibilities for digital contracts and payment systems.

Today, the lack of secure, privacy-preserving, consent-based digital identity solutions allows fraud to flourish, perpetuates exclusion and inequity, and adds inefficiency to our financial activities and daily life. Identity theft is on the rise, with data breaches impacting nearly 300 million victims in 2021 and malicious actors fraudulently obtaining billions of dollars in COVID-19 pandemic relief funds intended for small businesses and individuals in need. This malicious activity affects us all, creating significant losses for businesses and producing harmful impacts on public benefit programs and those Americans who use them. Operating independently, neither the private nor public sectors have been able to solve this problem.

The Federal Government will encourage and enable investments in strong, verifiable digital identity solutions that promote security, accessibility and interoperability, financial and social inclusion, consumer privacy, and economic growth. Building on the NIST-led digital identity research program authorized in the CHIPS and Science Act, these efforts will include strengthening the security of digital credentials; providing attribute and credential validation services; conducting foundational research; updating standards, guidelines, and governance processes to support consistent use and interoperability; and develop digital identity platforms that promote transparency and measurement. Acknowledging that States are piloting mobile drivers' licenses, we note and encourage a focus on privacy, security, civil liberties, equity, accessibility, and interoperability.



In developing these capabilities, our digital identity policies and technologies will protect and enhance individual privacy, civil rights, and civil liberties; guard against unintended consequences, bias, and potential abuse; enable vendor choice and voluntary use by individuals; increase security and interoperability; promote inclusivity and accessibility; and improve transparency and accountability in the use of technology and individuals' data.

Strategic Objective 4.6: Develop a National Strategy to Strengthen Our Cyber Workforce

Today, there are hundreds of thousands of unfilled vacancies in cybersecurity positions nationwide, and this gap is growing. Both private sector and public sector employers face challenges in recruiting, hiring, and retaining professionals to fill these vacancies, which negatively impacts our collective cybersecurity. To address this challenge, ONCD will lead the development and oversee implementation of a National Cyber Workforce and Education Strategy.

This strategy will take a comprehensive and coordinated approach to expanding the national cyber workforce, improving its diversity, and increasing access to cyber educational and training pathways. It will address the need for cybersecurity expertise across all sectors of the economy, with a special focus on critical infrastructure, and will enable the American workforce to continue to innovate in secure and resilient next-generation technologies. The strategy will strengthen and diversify the Federal cyber workforce, addressing the unique challenges the public sector faces in recruiting, retaining, and developing the talent and capacity needed to protect Federal data and IT infrastructure. And, the strategy will recognize that cyber workforce challenges are not unique to the United States, expanding upon and drawing inspiration from efforts underway in other countries.

The strategy will build on existing efforts to develop our national cybersecurity workforce including the National Initiative for Cybersecurity Education (NICE), the CyberCorps: Scholarship for Service program, the National Centers of Academic Excellence in Cybersecurity program, the Cybersecurity Education Training and Assistance Program, and the registered apprenticeships program. The strategy will also leverage ongoing workforce development programs at NSF and other science agencies to augment Federal Government programs.

It will tackle head on the lack of diversity in the cyber workforce. Employers are hiring from too small a pool of talent and from professional networks that and are not able to draw from the full diversity of the country. Women, people of color, first-generation professionals and immigrants, individuals with disabilities, and LGBTQI+ individuals are among the communities which are underrepresented in the field. Addressing systemic inequities and overcoming barriers that inhibit diversity in the cyber workforce is both a moral necessity and a strategic imperative.

To recruit and train the next generation of cybersecurity professionals to secure our digital ecosystem will require Federal leadership and enduring partnership between public and private sectors. Building and maintaining a strong cyber workforce cannot be achieved unless a cybersecurity career is within reach for any capable American who wishes to pursue it and every

organization with an unfilled position plays a part in training the next generation of cybersecurity talent.

PILLAR FIVE | FORGE INTERNATIONAL PARTNERSHIPS TO PURSUE SHARED GOALS

The United States seeks a world where responsible state behavior in cyberspace is expected and rewarded and where irresponsible behavior is isolating and costly. To achieve this goal, we will continue to engage with countries working in opposition to our larger agenda on common problems while we build a broad coalition of nations working to maintain an open, free, global, interoperable, reliable, and secure Internet.

For decades, we have worked through international institutions to define and advance responsible state behavior in cyberspace. We have used multilateral processes such as the United Nations (UN) Group of Governmental Experts and Open-Ended Working Group to develop a framework that includes a set of peacetime norms and confidence-building measures, which all UN member states have affirmed in the UN General Assembly. We have supported the expansion of the Budapest Convention on Cybercrime and other global efforts to make cyberspace more secure. We will continue these efforts while recognizing the need to work with partners to thwart the dark vision for the future of the Internet that the PRC and other autocratic governments promote. We will do so by demonstrating to economies and societies the value of openness and jointly imposing consequences for behavior that runs counter to agreed norms of state behavior.

To counter common threats, preserve and reinforce global Internet freedom, protect against transnational digital repression, and build toward a shared digital ecosystem that is more inherently resilient and defensible, the United States will work to scale the emerging model of collaboration by national cybersecurity stakeholders to cooperate with the international community. We will expand coalitions, collaboratively disrupt transnational criminals and other malicious cyber actors, build the capacity of our international allies and partners, reinforce the applicability of existing international law to state behavior in cyberspace, uphold globally accepted and voluntary norms of responsible state behavior in peacetime, and punish those that engage in disruptive, destructive, or destabilizing malicious cyber activity.

STRATEGIC OBJECTIVE 5.1: BUILD COALITIONS TO COUNTER THREATS TO OUR DIGITAL ECOSYSTEM

In April 2022, the United States and 60 countries launched the Declaration for the Future of the Internet (DFI), bringing together a broad, diverse coalition of partners—the largest of its kind—around a common, democratic vision for an open, free, global, interoperable, reliable, and secure digital future. Through the DFI, the Freedom Online Coalition, and other partnerships and mechanisms, the United States is rallying like-minded countries, the international business community, and other stakeholders to advance our vision for the future of the Internet that

promotes secure and trusted data flows, respects privacy, promotes human rights, and enables progress on broader challenges.

Through mechanisms like the Quadrilateral Security Dialogue ("the Quad") between the United States, India, Japan, and Australia, the United States and its international allies and partners are advancing these shared goals for cyberspace. These include improving information sharing between computer emergency response teams and the development of a digital ecosystem based on shared values. The Indo-Pacific Economic Framework for Prosperity (IPEF) and the Americas Partnership for Economic Prosperity (APEP) create opportunities for the United States and regional governments to collaborate in setting rules of the road for the digital economy, including facilitating the development of technical standards, mechanisms to enable cross-border data flows that protect privacy while avoiding strict data localization requirements, and actions to foster supply chain security and resilience. Through the U.S.-EU Trade and Technology Council (TTC), we are coordinating across the Atlantic to combat shared threats and demonstrate how market approaches to digital trade, technology, and innovation can improve the lives of our citizens and be a force for greater prosperity. The United States is also working closely with Australia and the United Kingdom through the trilateral security and technology pact ("AUKUS") to secure critical technologies, improve cyber coordination, and share advanced capabilities.

Through these and other partnerships, the United States and international counterparts can advance common cybersecurity interests by sharing cyber threat information, exchanging model cybersecurity practices, comparing sector-specific expertise, driving secure-by-design principles, and coordinating policy and incident response activities. Furthermore, multistakeholder partnerships and coalitions that also include private sector and civil society organizations, such as the Christchurch Call to Action to Eliminate Terrorist and Violent Extremist Content Online, the Freedom Online Coalition, and the Global Partnership for Action on Gender-Based Online Harassment and Abuse, are crucial to tackling systemic issues. We will leverage these partnerships to enable effective operational collaboration to defend our shared digital ecosystem. We will also support and help build, as needed, new and innovative partnerships—as in the case of the international Counter-Ransomware Initiative—that bring together unique collections of stakeholders to address new and emerging cybersecurity challenges.

Because most malicious cyber activity targeting the United States is carried out by actors based in foreign countries or using foreign computing infrastructure, we must strengthen the mechanisms we have to collaborate with our allies and partners so that no adversary can evade the rule of law. The United States will work with its allies and partners to develop new collaborative law enforcement mechanisms for the digital age. For example, the European Cybercrime Centre has played a vital role in modernizing legal frameworks, training law enforcement, improving attribution, collaborating with private sector partners, and responding to malicious cyber activities in Europe. To extend this model, we will support efforts to build effective hubs with partners in other regions.

Strategic Objective 5.2: Strengthen International Partner Capacity

As we build a coalition to advance shared cybersecurity priorities and promote a common vision for the digital ecosystem, the United States will strengthen the capacity of like-minded states across the globe to support these goals. We must enable our allies and partners to secure critical infrastructure networks, build effective incident detection and response capabilities, share cyber threat information, pursue diplomatic collaboration, build law enforcement capacity and effectiveness through operational collaboration, and support our shared interests in cyberspace by adhering to international law and reinforcing norms of responsible state behavior.

To accomplish this goal, the United States will marshal expertise across agencies, the public and private sectors, and among advanced regional partners to pursue coordinated and effective international cyber capacity-building and operational collaboration efforts. Within the law enforcement community, DOJ will continue to build a more robust cybercrime cooperation paradigm through bilateral and multilateral engagement and agreements, formal and informal cooperation, and providing international and regional leadership to strengthen cybercrime laws, policies, and operations. DoD will continue to strengthen its military-to-military relationships to leverage allies' and partners' unique skills and perspectives while building their capacity to contribute to our collective cybersecurity posture. The Department of State will continue to coordinate whole-of-government efforts to ensure Federal capacity building priorities are strategically aligned and further U.S., allied, and partner interests.

Strategic Objective 5.3: Expand U.S. Ability to Assist Allies and Partners

As recent cyberattacks against Costa Rica, Albania, and Montenegro have demonstrated, allies and partners who fall victim to a significant cyberattack may seek support from the United States and allied and partner nations to investigate, responding to, and recover from such incidents. Providing this support will not only assist with partner recovery and response, but will also advance U.S. foreign policy and cybersecurity goals. Close cooperation with an affected ally or partner demonstrates solidarity in the face of adversary activity and can accelerate efforts to expose counter-normative state behavior and impose consequences.

The Administration will establish policies for determining when it is in the national interest to provide such support, develop mechanisms for identifying and deploying department and agency resources in such efforts, and, where needed, rapidly seek to remove existing financial and procedural barriers to provide such operational support. As one example, the United States is leading a North Atlantic Treaty Organization (NATO) effort to build a virtual cyber incident

support capability that enables Allies to more effectively and efficiently support each other in response to significant malicious cyber activities.

Strategic Objective 5.4: Build Coalitions to Reinforce Global Norms of Responsible State Behavior

Every member of the United Nations has made a political commitment to endorse peacetime norms of responsible state behavior in cyberspace that includes refraining from cyber operations that would intentionally damage critical infrastructure contrary to their obligations under international law. While our adversaries know that such commitments are not self-enforcing, the growing influence of this framework has led states to call out those who act contrary to it. Increasingly, a community of nations has collaborated to produce coordinated statements of attribution that carry the simultaneous diplomatic condemnation of many governments and strengthening the coalition committed to a stable cyberspace.

The United States, as a core part of its renewed, active diplomacy, will hold irresponsible states accountable when they fail to uphold their commitments. To effectively constrain our adversaries and counter malicious activities below the threshold of armed conflict, we will work with our allies and partners to pair statements of condemnation with the imposition of meaningful consequences. These efforts will require collaborative use of all tools of statecraft, including diplomatic isolation, economic costs, counter-cyber and law enforcement operations, or legal sanctions, among others.

Strategic Objective 5.5: Secure Global Supply Chains for Information, Communications, and Operational Technology Products and Services

Complex and globally interconnected supply chains produce the information, communications, and operational technology products and services that power the U.S. economy. From raw materials and basic components to finished products and services—both virtual and physical—we depend upon a growing network of foreign suppliers. This dependency on critical foreign products and services from untrusted suppliers introduces multiple sources of systemic risk to our digital ecosystem. Mitigating this risk will require long-term, strategic collaboration between public and private sectors at home and abroad to rebalance global supply chains and make them more transparent, secure, resilient, and trustworthy.

Critical inputs, components, and systems must increasingly be developed at home or in close coordination with allies and partners who share our vision of an open, free, global, interoperable, reliable, and secure Internet. Building on the National Strategy to Secure 5G, we are working with our partners to develop secure, reliable, and trustworthy supply chains for 5G and next-generation

wireless networks including through Open Radio Access Networks (Open RAN) and collaborative initiatives to diversify suppliers. Such efforts include DoD testing of Open RAN implementations across multiple bases, with multi-million dollar smart warehouse and logistics projects, and National Telecommunications and Information Administration's (NTIA) work to catalyze the development and adoption of open, interoperable, and standards-based networks through the Public Wireless Supply Chain Innovation Fund. Extending this model to other critical technologies will require long-term, strategic collaboration between public and private sectors at home and abroad to rebalance global supply chains and make them more secure, resilient, and trustworthy. The Bipartisan Infrastructure Law mandates "Build America, Buy America" for Federally-funded projects, including for digital infrastructure. Through EO 14017, "America's Supply Chains," the CHIPS and Science Act, and the Inflation Reduction Act, the Federal Government has introduced new industrial and innovation strategy tools to help restore production of critical goods to the United States and its close partners while securing our information technology and advanced manufacturing supply chains.

The United States will work with our allies and partners, including through regional partnerships like IPEF, the Quad Critical and Emerging Technology Working Group, and the TTC, to identify and implement best practices in cross-border supply chain risk management and work to shift supply chains to flow through partner countries and trusted vendors. This effort will prioritize opportunities to provide higher levels of assurance that digital technologies will function as expected and to attract countries to support the shared vision of an open, free, global, interoperable, reliable, and secure Internet. The Department of State will further accelerate these efforts through the new International Technology Security and Innovation Fund to support the creation of secure and diverse supply chains for semiconductors and telecommunications. Finally, through implementation of EO 13873, "Securing the Information and Communications Technology and Services Supply Chain," as well as EO 14034 "Protecting Americans' Sensitive Data From Foreign Adversaries," we will work to prevent unacceptable and undue risks to our national security from information and communications technology and services subject to control or influence from adversarial governments.

IMPLEMENTATION

Realizing the strategic objectives outlined in this strategy will require a strong focus on implementation. Under the oversight of NSC staff and in coordination with OMB, ONCD will coordinate implementation of this strategy. ONCD will work with interagency partners to develop and publish an implementation plan to set out the Federal lines of effort necessary to implement this strategy. Where implementation of this strategy requires review of existing policy or the development of new policy, NSC staff will lead this effort through the process described in NSM-2, "Renewing the National Security Council System."

ASSESSING EFFECTIVENESS

In implementing this strategy, the Federal Government will take a data-driven approach. We will measure investments made, our progress toward implementation, and ultimate outcomes and effectiveness of these efforts. ONCD, in coordination with NSC staff, OMB, and departments and agencies, will assess the effectiveness of this strategy and report annually to the President, the Assistant to the President for National Security Affairs, and Congress on the effectiveness of this strategy, associated policy, and follow-on actions in achieving its goals.

INCORPORATING LESSONS LEARNED

The Federal Government will prioritize capturing lessons learned from cyber incidents and apply those lessons in the implementation of this strategy. The CSRB completed its first review on the Log4j vulnerability in summer 2022, during which the CSRB compiled an authoritative account of what happened, from the discovery of the vulnerability to the progression of the largest-scale cyber incident response in history. The CSRB also provided industry, Federal agencies, and the software development community with clear, actionable recommendations based on what the review discovered, so that the community can be better protected going forward.

When the CSRB concludes its reviews, the Federal Government will address its recommendations by improving its own operations through executive action where possible, and will work with Congress to enhance authorities, as necessary. Federal agencies also will promote and amplify CSRB recommendations that are directed to network defenders in the private sector. Beyond the CSRB, a broader national effort to learn from cyber incidents is required. Regulators are encouraged to build incident review processes into their regulatory frameworks. CISA and law enforcement agencies are also encouraged to build processes to routinely extract lessons learned from their investigations and incident response activities. Private companies are likewise encouraged to undertake these reviews and share findings from their efforts to inform implementation of this strategy.

MAKING THE INVESTMENT

Maintaining an open, free, global, interoperable, reliable, and secure Internet and building a more defensible and resilient digital ecosystem will require generational investments by the Federal Government, allies and partners, and by the private sector. Many Federal actions contained in this strategy are intended to increase private sector investment in security, resilience, improved collaboration, and research and development. For Federal agencies to support their private sector

partners and increase their capacity to carry out essential Federal missions, targeted investment will be required. To guide this investment, ONCD and OMB will jointly issue annual guidance on cybersecurity budget priorities to departments and agencies to further the Administration's strategic approach. ONCD will work with OMB to ensure alignment of department and agency budget proposals to achieve the goals set out in this strategy. The Administration will work with Congress to fund cybersecurity activities to keep pace with the speed of change inherent within the cyber ecosystem.

Data Scientists

Summary



Job Outlook

Employment of data scientists is projected to grow 34 percent from 2024 to 2034, much faster than the average for all occupations.

About 23,400 openings for data scientists are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

State & Area Data

Explore resources for employment and wages by state and area for data scientists.

Similar Occupations

Compare the job duties, education, job growth, and pay of data scientists with similar occupations.

More Information, Including Links to O*NET

Learn more about data scientists by visiting additional resources, including O*NET, a source on key characteristics of workers and occupations.

What They Do ->

232

1/6

What Data Scientists Do



To present their findings, these scientists often make use of data visualization.

Data scientists use analytical tools and techniques to extract meaningful insights from data.

Duties

Data scientists typically do the following:

- Determine which data are available and useful for the project
- Collect, categorize, and analyze data
- Create, validate, test, and update algorithms and models
- Use data visualization software to present findings
- Make business recommendations to stakeholders based on data analysis

Data scientists often begin a project by gathering or identifying relevant data sources, such as surveys. They may use a variety of methods to obtain data, including through access to other organizations' databases or by using web-scraping tools (software that extracts specific information from websites). They may start with large, unstructured datasets, commonly referred to as raw data. To properly analyze the data, these scientists must "clean" the raw data, a process by which they structure the data to make them readable by software programs.

Data scientists develop algorithms (sets of instructions that tell computers what to do) and models to support programs for machine learning. They use machine learning to classify or categorize data or to make predictions related to the models. Scientists also must test the algorithms and models for accuracy, including for updates with newly collected data.

Data scientists often use data visualization software to present their findings as charts, maps, and other graphics. Visualization techniques allow data scientists to clearly communicate their analyses to technical and nontechnical audiences, including colleagues, managers, and clients. Ensuring that audiences understand the information helps data scientists make recommendations for business decisions or process changes based on the results of their analysis.

Some data scientists choose to focus on a particular area of work. For example, data scientists who have a strong coding or engineering background may develop or recommend systems, build machine learning algorithms, and devise ways to enhance web-browsing functions. Others conduct research for reports or academic journals. Still others focus on improving business strategy for activities such as marketing, sales, and user engagement.

<- Summary

Work Environment ->

Work Environment



Data scientists typically work in an office setting.

Data scientists held about 245,900 jobs in 2024. The largest employers of data scientists were as follows:

Computer systems design and related services	11%
Insurance carriers and related activities	10
Management of companies and enterprises	10
Management, scientific, and technical consulting services	6
Scientific research and development services	5

Data scientists spend much of their time in an office setting.

Work Schedules

Most data scientists work full time.

<- What They Do

How to Become One ->

How to Become a Data Scientist



Data scientists need strong computer skills.

Data scientists typically need at least a bachelor's degree in mathematics, statistics, computer science, or a related field to enter the occupation. However, some employers require or prefer that candidates have a master's or doctoral degree.

Education

Data scientists typically need at least a bachelor's degree, but some jobs require a master's or doctoral degree. Common fields of degree include mathematics, statistics, computer science, business, and engineering.

Because data science involves the use of algorithms and statistical techniques, students need extensive study in mathematics and statistics. High school students interested in becoming data scientists should take classes in subjects such as linear algebra, calculus, and probability and statistics.

At the college level, courses in computer science are important in addition to math and statistics. Students must learn data-oriented programming languages as well as statistical, database, and other software for presenting analyses.

Other Experience

Some employers require industry-related experience or education. For example, data scientists seeking work in an asset management company may need to have experience in the finance industry or to have completed coursework that demonstrates an understanding of investments, banking, or related subjects.

Important Qualities

The following are examples of qualities that are important for these workers to perform their duties. For more information, visit the Employment Projections (EP) skills data page.

Analytical skills. Data scientists must be adept at researching and at examining and interpreting findings.

Computer skills. Data scientists must be able to write code, analyze data, develop or improve algorithms, and use data visualization tools.

Communication skills. Data scientists must be able to convey the results of their analysis to technical and nontechnical audiences to make business recommendations.

Logical-thinking skills. Data scientists must understand and be able to design and develop statistical models and to analyze data.

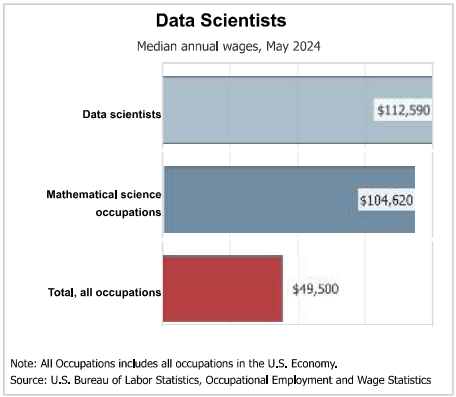
Math skills. Data scientists use statistical methods to collect and organize data.

Problem-solving skills. Data scientists must devise solutions to the problems they encounter in data collection and cleaning and in developing statistical models and algorithms.

<- Work Environment

Pay ->

Pay



The median annual wage for data scientists was $112,590 in May 2024. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than $63,650, and the highest 10 percent earned more than $194,410.

In May 2024, the median annual wages for data scientists in the top industries in which they worked were as follows:

Computer systems design and related services	$128,020
Management of companies and enterprises	126,940
Scientific research and development services	120,090

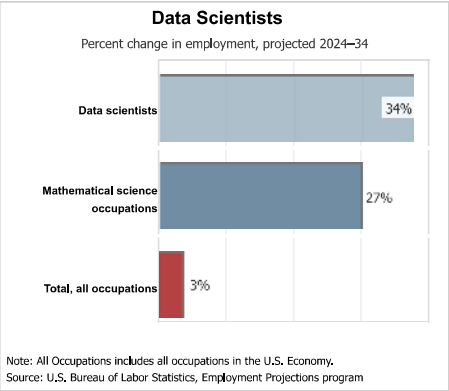
Management, scientific, and technical consulting services	110,240
Insurance carriers and related activities	108,920

Most data scientists work full time.

<- How to Become One

Job Outlook ->

Job Outlook



Employment of data scientists is projected to grow 34 percent from 2024 to 2034, much faster than the average for all occupations.

About 23,400 openings for data scientists are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

Employment

Employment growth for data scientists is expected to stem from an increased demand for data-driven decisions. The volume of data available and the potential uses for that data will increase over the projections decade. As a result, organizations will likely need more data scientists to mine and analyze the large amounts of information and data collected. Data scientists' analysis will help organizations to make informed decisions and improve their business processes, to design and develop new products, and to better market their products.

Employment projections data for data scientists, 2024–34

Data scientists

SOC Code:
15-2051

Employment, 2024:
245,900

Projected Employment, 2034:
328,300

Change, 2024–34 (Percent):
34

Change, 2024–34 (Numeric):
82,500

Employment By Industry:
Get data

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

<- Pay

State & Area Data ->

State & Area Data

Occupational Employment and Wage Statistics (OEWS)

The Occupational Employment and Wage Statistics (OEWS) program produces employment and wage estimates annually for over 800 occupations. These estimates are available for the nation as a whole, for individual states, and for metropolitan and nonmetropolitan areas. The link below goes to OEWS data maps for employment and wages by state and area. Use the dropdown boxes to select an occupation.

Occupational Employment and Wage Statistics (OEWS) Profiles

Projections Central

Occupational employment projections are developed for all states by Labor Market Information (LMI) or individual state Employment Projections offices. All state projections data are available at www.projectionscentral.org. Information on this site allows projected employment growth for an occupation to be compared among states or to be compared within one state. In addition, states may produce projections for areas; there are links to each state's websites where these data may be retrieved.

CareerOneStop

CareerOneStop includes hundreds of occupational profiles with data available by state and metro area. There are links in the left-hand side menu to compare occupational employment by state and occupational wages by local area or metro area. There is also a salary info tool to search for wages by zip code.

Similar Occupations

This table shows a list of occupations with job duties that are similar to those of data scientists.

Actuaries

Job Duties:
Actuaries use mathematics, statistics, and financial theory to analyze the economic costs of risk and uncertainty.

Entry-Level Education:
Bachelor's degree

2024 Median Pay:
$125,770

Computer and Information Research Scientists

Job Duties:
Computer and information research scientists design innovative uses for new and existing computing technology.

Entry-Level Education:
Master's degree

2024 Median Pay:
$140,910

Economists

Job Duties:
Economists conduct research, prepare reports, and evaluate issues related to monetary and fiscal policy. They also may collect and analyze statistical data.

Entry-Level Education:
Master's degree

2024 Median Pay:
$115,440

Financial Analysts

Job Duties:
Financial analysts guide businesses and individuals in decisions about expending money to attain profit.

Entry-Level Education:
Bachelor's degree

2024 Median Pay:
$101,910

Market Research Analysts

Job Duties:
Market research analysts study consumer preferences, business conditions, and other factors to assess potential sales of a product or service.

Entry-Level Education:
Bachelor's degree

2024 Median Pay:
$76,950

Mathematicians and Statisticians

Job Duties:
Mathematicians and statisticians analyze data and apply computational techniques to solve problems.

Entry-Level Education:
Master's degree

2024 Median Pay:
$104,350

Operations Research Analysts

Job Duties:
Operations research analysts use mathematics and logic to help solve complex issues.

Entry-Level Education:
Bachelor's degree

2024 Median Pay:
$91,290

Software Developers, Quality Assurance Analysts, and Testers

Job Duties:
Software developers design computer applications or programs. Software quality assurance analysts and testers identify problems with applications or programs and report defects.

Entry-Level Education:
Bachelor's degree

2024 Median Pay:
$131,450

Survey Researchers

Job Duties:
Survey researchers design and conduct surveys and analyze data.

Entry-Level Education:
Master's degree

2024 Median Pay:
$63,380

<- State & Area Data

More Info ->

Contacts for More Information

O*NET

Business Intelligence Analysts

Clinical Data Managers

Data Scientists

<- Similar Occupations

SUGGESTED CITATION:

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Data Scientists, at https://www.bls.gov/ooh/math/data-scientists.htm (visited *February 28, 2026*).

Last Modified Date: Thursday, August 28, 2025

U.S. BUREAU OF LABOR STATISTICS Occupational Outlook Handbook Office of Employment and Unemployment Statistics Suitland Federal Center Floor 3 4600 Silver Hill Road Washington, DC 20212-0002

Telephone: 202-691-5700_ www.bls.gov/ooh Contact OOH

Economic
Policy
Institute

Updated employment multipliers for the U.S. economy

Report • By **Josh Bivens** • January 23, 2019

Summary

When it comes to the ripple effects that spread to the rest of the labor market, one lost dollar of economic output or one lost job is not the same as another.

Each industry has *backward linkages* to economic sectors that provide the materials needed for the industry's output, and each industry has *forward linkages* to the economic sectors where the industry's workers spend their income. Therefore, in addition to the jobs directly supported by an industry, a large number of indirect jobs may also be supported by that industry. The subtraction (or addition) of jobs and output in industries with strong backward and forward linkages to other economic sectors can cause large ripple effects.

This brief calculates *employment multipliers* by industry to illustrate the importance of these linkages, updating earlier work by Bivens (2003) and Baker and Lee (1993). Employment multipliers measure how the creation or destruction of output or employment in a particular industry translates into wider employment changes throughout the economy.

Background and findings

Production in a given economic sector involves *linkages* with other sectors—that is, production in one industry depends on suppliers in other industries (*backward linkages*), while wages earned in the production and supplier sectors are spent in other economic sectors (*forward linkages*). In the case of automobile production, there are backward linkages to industries that produce tires, glass for windshields, and steel for automobile frames (among many others). Forward linkages occur when automobile workers (and suppliers' employees) spend their income in restaurants and retail stores and at the doctor (to name just a few).

Industries that are heavy users of materials are vital to their suppliers. If an automobile factory were to close, its suppliers in the glass, steel, and rubber industries would have a big hole to fill in demand for their own output. Industries that pay higher wages are vital to their forward-linked industries. If a steel factory closed, surrounding restaurants and retail malls would also have a big hole to fill in demand for their output.

There are two obvious ways to measure how intensive an industry's backward and forward linkages are to the rest of the economy. The first estimates the ripple effects of a given *number of jobs* being lost directly in an industry. In this case, the *direct* job loss is assumed to be, say, 100, and then the resulting backward and forward ripple effects can be estimated. The second takes a given *dollar value* of final demand for an industry's output and calculates how much of this final demand spills over into backward- and forward-linked industries. An example would be assessing the impact of a fall of $1 million in final demand for autos (that is, $1 million less being spent on cars by consumers). This fall in final demand would cost jobs directly in the auto production industry, but would also cause demand to fall in supplier industries and in forward-linked industries that rely on automobile workers (and on workers in the supplier industries) to purchase their output. With the right data, researchers can empirically estimate the number of jobs lost in each link of these chains.

There are virtues and drawbacks to both the output and the employment measures as the bases of employment multipliers (as discussed in the methodology appendix); this paper presents estimates using both measures.

Examples: Employment multipliers by jobs lost or by output lost

Would the closing of a factory that manufactures durable goods and employs 1,000 people have a greater impact on the overall economy than the closing of a retail shopping mall that employs 1,000 people? The direct impacts (1,000 jobs lost) are the same; employment multipliers can show us what the total indirect effects will be. As seen in **Table 1**, the number of indirect jobs lost for every 100 direct jobs lost are 744.1 for durable manufacturing and 122.1 for retail trade. Therefore, the estimated total number of indirect jobs lost if the auto factory closed would be 7,441; the estimated indirect job loss if the shopping mall closed would be 1,221.

We use a similar example to look at the question from a different angle: What are the effects on jobs when the demand for output drops by a certain amount? Specifically, would the disappearance of $1 million in final demand for output from factories producing durable goods have the same aggregate jobs impact as the disappearance of $1 million in retail? In this case, the direct jobs lost in durable manufacturing stemming from a $1 million reduction in final demand would be smaller—about two jobs in durable goods manufacturing compared with about 10 jobs in retail. (See **Table 2**, "durable manufacturing" and "retail trade" rows.) This is because durable goods production is far more productive than retail and hence fewer direct jobs are needed per dollar of output. However, the backward and forward linkages for durable goods cause this direct output loss to ripple far more widely throughout the job market. The employment multipliers in Table 1 show a total of 16.5 indirect jobs lost per $1 million drop in demand for durable manufacturing, compared with 10.6 indirect jobs lost for the same demand drop in retail. This means that, while direct job loss is much lower in durable manufacturing, total job loss (including both indirect and direct jobs) for a $1 million drop in demand is similar in durable manufacturing and retail (18.3 and 20.5, respectively).

The summary findings for major industry groups are provided in Tables 1 and 2. The appendix describes our methodology in detail, and **Appendix Tables A1** and **A2** provide the employment multipliers for all 179 industries tracked by the data sources we use in this paper. Finally, an accompanying **spreadsheet** providing the raw data is being released with this paper for those interested in exploring the multipliers.[2]

TABLE 1

Employment multipliers per 100 direct jobs, by major private-sector industry group

Major industry group	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
Agriculture, forest, fishing, and hunting	100	93.6	134.8	228.5
Mining	100	224.0	166.0	390.0
Utilities	100	515.4	442.2	957.7
Construction	100	88.0	138.1	226.1
Durable manufacturing	100	289.1	454.9	744.1
Nondurable manufacturing	100	184.8	329.5	514.3
Wholesale trade	100	107.3	128.0	235.3
Retail trade	100	46.7	75.4	122.1
Transportation and warehousing	100	112.8	163.3	276.0
Information	100	252.0	321.1	573.1
Finance and insurance	100	149.7	214.7	364.4
Real estate and rental leasing	100	396.6	483.1	879.7
Professional, scientific, and technical services	100	142.1	276.2	418.3
Management of companies	100	144.4	255.4	399.9
Administrative and support services and waste management	100	45.5	89.1	134.5
Educational services	100	63.8	129.9	193.7
Health care and social assistance	100	69.4	136.2	205.6
Arts, entertainment, and recreation	100	123.3	255.2	378.5
Accommodation and food services	100	53.8	107.4	161.2
Other services (except public administration)	100	70.7	139.6	210.3

Economic Policy Institute

* Includes materials and capital services supplier jobs

** Includes jobs supported by respending of income from direct jobs and supplier jobs, as well as public-sector jobs supported by tax revenue

Notes: See methods appendix for derivation. The industry-specific multipliers from Appendix Table A1 are weighted and summed across industries within major industry groups to get the multipliers in this table. For the per-100-jobs multipliers, the weight used is hours of work (weights are included in the Bureau of Labor Statistics Employment Requirements Matrices data).

Source: EPI analysis of data from the Bureau of Labor Statistics (BLS) Employment Requirements Matrices, the BLS Current Employment Statistics program, and the Bureau of Economic Analysis GDP-by-industry accounts

TABLE 2

Employment multipliers per $1 million in final demand, by major private-sector industry group

Major industry group	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
Agriculture, forest, fishing, and hunting	5.9	5.4	4.8	10.1
Mining	1.3	3.4	2.5	5.9
Utilities	1.0	4.5	5.9	10.4
Construction	5.5	4.8	6.1	10.9
Durable manufacturing	1.8	4.9	11.6	16.5
Nondurable manufacturing	2.6	4.3	10.4	14.7
Wholesale trade	3.8	4.1	4.3	8.4
Retail trade	9.9	4.6	6.1	10.6
Transportation and warehousing	4.7	5.4	6.0	11.3
Information	2.0	4.5	6.4	10.9
Finance and insurance	3.1	4.7	6.2	10.8
Real estate and rental leasing	1.4	5.4	17.2	22.6
Professional, scientific, and technical services	4.3	4.8	10.4	15.3
Management of companies	3.6	5.2	7.2	12.4
Administrative and support services and waste management	10.6	5.0	8.1	13.1
Educational services	9.1	5.4	9.2	14.6
Health care and social assistance	7.8	5.3	8.2	13.5
Arts, entertainment, and recreation	6.5	6.5	16.0	22.5
Accommodation and food services	11.5	6.3	7.0	13.2
Other services (except public administration)	8.7	5.3	8.7	14.0

Economic Policy Institute

* Includes materials and capital services supplier jobs

** Includes jobs supported by respending of income from direct jobs and supplier jobs, as well as public-sector jobs supported by tax revenue

Notes: See methods appendix for derivation. The industry-specific multipliers from Appendix Table A2 are weighted and summed across industries within major industry groups to get the multipliers in this table. For the per-$1-million multipliers, the weight used is an output weight (weights are included in the Bureau of Labor Statistics Employment Requirements Matrices data).

Source: EPI analysis of data from the Bureau of Labor Statistics (BLS) Employment Requirements Matrices, the BLS Current Employment Statistics program, and the Bureau of Economic Analysis GDP-by-industry accounts

Conclusion

An understanding of employment multipliers—the degree of backward and forward linkages that exists between industries—may often be useful to policymakers and analysts. As an example, the three largest U.S. automobile firms (General Motors, Ford, and Chrysler) directly employ substantially less than 200,000 workers in the United States. Yet it was widely (and correctly) considered imperative among policymakers to not let these firms fail and become casualties of the financial crisis of late 2008. This belief from policymakers was driven by the fully rational fear that the substantial backward and forward linkages from auto assembly jobs would be large enough to cause mammoth ripple effects throughout the economy. Without understanding the scope of these effects, this decision would be harder to understand.

This report makes these linkages concrete and measurable by calculating employment multipliers two ways and provides estimates for 179 private-sector industries. It also provides a methodology and accompanying **spreadsheet** to allow others to experiment with calculations.

Acknowledgments

This research was made possible by support from the **Alliance for American Manufacturing**.

Appendix: Data methods for calculating employment multipliers, per dollar and per job

In this report, I estimate two broad categories of indirect job impacts that are spurred by direct employment changes in a given industry: supplier jobs and induced (or respending) jobs (including public-sector jobs). The first category (supplier jobs) defines the backward linkages of an industry. Induced jobs define forward linkages. The total of these influences make up the "employment multiplier."

I calculate the employment multipliers on two different bases: per each 100 jobs in an industry and per each $1 million of final demand for an industry's output.

Supplier jobs

Supplier jobs are generally the most intuitive category of indirect employment changes. Put simply, when jobs are lost in one industry, the industries that provide inputs and materials also suffer losses. Take a concrete example: When coal-mining activity shrinks, it leads to a reduction in demand for industries that provide inputs to coal mining, such as those that provide safety equipment, industrial equipment, and/or transportation equipment and services.

Supplier job estimates can be calculated directly from the employment requirements matrices (ERM) provided by the Bureau of Labor Statistics (BLS). The BLS ERM shows how many jobs are supported by $1 million in final demand in a given industry, jobs both in the industry directly satisfying the final demand as well as ones supplying inputs. For example, each $1 million in final demand for construction services supports jobs in the construction industry, but also supports jobs in concrete production, bulldozer manufacturing, and accounting services. The ERM tracks how many jobs in these supplier industries are supported by each $1 million in construction services purchased.

Materials supplier jobs

To obtain materials supply jobs per each $1 million in final demand, I sum up all rows in the column vector from the ERM, and then subtract out the direct jobs. For construction, I simply sum all nonconstruction entries in the column vector from the ERM.

Because the ERM is set up in terms of dollar flows rather than job flows, translating a given direct employment impact into an effect on supplier jobs requires a small manipulation. Specifically, I take the ratio of jobs supported by a given amount of spending in an industry that are supplier jobs to direct jobs, and then multiply this ratio by the number of direct jobs identified in the ERM. The estimate for supplier jobs supported by each 100 direct jobs in a given industry is calculated using the following equation (with the subscript "total" representing the sum of direct and material supplies jobs):

$$((ER_{total} - ER_{direct})/ER_{direct}) * 100$$

Even these most basic statistics, derived directly with very little manipulation from the BLS ERM, indicate why using two separate bases for the employment multiplier (per 100 jobs or per $1 million of final demand) might be helpful. Take, for instance, the comparison of *per-job* estimates in two industries—one in which each $1 million in final demand is associated with just one direct job in the industry, but 10 jobs in the materials supplier industries, and another where this split is five direct jobs to six materials supplier jobs. In this case, the sum of direct and material supply jobs in these industries is identical per each $1 million (11 jobs). But comparing them on a *per-job* basis is comparing two very different flows of final demand. In the industry with only one direct job per $1 million of final demand, it takes $100 million in final demand to support 100 direct jobs. But in the industry with five direct jobs per $1 million it takes only $20 million to support 100 direct jobs.

This example might make it seem as if the per-job measure is less useful generally. But that's not necessarily the case. Media reports of plant closings, for example, often report the number of jobs, not the economic output, that will be lost to a local community. Rather than having to guess at the output loss, the per-job multipliers in this report can be used by industry analysts to get an estimate of the economic ripple effects of these losses.

Capital services supplier jobs

One weakness of the BLS ERM is that it does not account for the depreciation of capital goods (plant, equipment, and structures) that is caused by production. This could have nontrivial impacts on jobs supported in capital-intensive industries. Further, because capital-intensive industries often have quite small numbers of direct jobs associated with a dollar of output, not accounting for the capital services supplies to these industries could greatly underestimate their overall effect on the economy.

To correct this failure to account for capital services supplies, I estimate the number of jobs associated with producing the capital goods that would be needed to replace the amount of depreciation associated with each $1 million in final demand and for each 100 direct jobs in an industry.

I first estimate the value of capital services used in each industry's production. To do this, I use data from the Bureau of Economic Analysis (BEA) on gross domestic product by industry. The KLEMS measures from this data (capital, labor, energy, materials, and suppliers) provide an estimate of the capital share of industry output (that is, the share of income generated by each industry that goes to pay owners of capital goods rather than workers or suppliers). Combining industry output (obtained from the BLS ERM data) with the capital share of output provides an estimate of the amount of new capital goods that must be produced each period to replace this capital service flow. Essentially, capital-intensive industries will have to spend more money to replace capital services that are used up during production. Based on ratios that approximately reflect the economywide division of aggregate capital investment to structures versus equipment, I assume that 40 percent of this total spending flows into construction to replace new structures and that 60 percent flows into equipment manufacturing to replace machinery. I then use the ERM to calculate how many jobs are associated with the production of this structure and equipment investment. This provides my estimate of the number of capital supplier jobs associated with each $1 million in final demand for an industry.

To get a number on capital supplier jobs associated with each direct job in an industry, I make a small manipulation of the data. The first expression, in parentheses, shows how output (measured in dollars) per each 100 workers in a given industry can be calculated. This output measure is then multiplied by the capital share to give the expression for depreciation (or capital service inputs) associated with each 100 jobs in an industry.

$$\left(\frac{\$1{,}000{,}000}{ER_{direct}}\right) * 100 * Capital\ share\ of\ output = Depreciation$$

This measure of depreciation is then used to estimate industry capital demand. From here, the formula for supplier jobs to replace the depreciation involved with every 100 direct jobs in a given industry is:

$$ER_{total_equipment} * \left(\frac{Depreciation}{\$1{,}000{,}000}\right) * 0.6 + ER_{structures} * \left(\frac{Depreciation}{\$1{,}000{,}000}\right) * 0.4$$

Induced jobs

Another category of indirect jobs concerns those that are supported by the demand that relies on the wage and salary income of both direct jobs and supplier jobs. These jobs define the forward linkages from an industry's output. For example, a job at a construction site also supports jobs in restaurants and diners where construction workers eat, grocery stores where they shop for food, and doctors' offices where they pay for medical services. Public-sector jobs, supported by workers' taxes, also fall into this category.

Jobs supported by respending of income from direct jobs and supplier jobs

The scale of induced jobs supported by each $1 million in final demand or 100 direct jobs in a given industry depends on the overall "respending multiplier," or how much of a worker's earnings are spent on consumption goods. Bivens (2003) reviews evidence on this multiplier and takes 0.5 as a conservative estimate of this effect.[1] Induced jobs also depend on the relative wages of both direct and supplier industries. As an example, if automobile assembly jobs have wages that are 50 percent higher than the economywide average wage, this would lead to spending induced by each 100 jobs in that industry that is 50 percent higher than the economywide average, making the induced spending multiplier this much higher. Further, if the supplier jobs supported by automobile assembly (steel, iron, glass, etc.) pay higher-than-average wages, then this will also increase the induced spending multiplier for the automobile assembly industry.

In this paper, I index hourly wages by industry to establish an economywide average (weighted by hours worked, obtained from the BLS ERM data) equal to 1.0. From here, one can express the induced jobs supported by each $1 million in final demand or 100 direct jobs in an industry as simply 100 times the index of average hourly wages in the industry times 0.5 (our respending multiplier).

For supplier jobs, I multiply the (179 industries) vector of supplier jobs associated with a given $1 million in final demand or 100 direct jobs in the industry by each industry's average hourly wage index, multiply by 0.5 (the respending multiplier), and then sum to estimate the induced spending from *supplier* jobs associated with final demand or direct employment in a given industry.

Public-sector jobs supported by tax revenue

Finally, we can estimate another forward linkage—the number of public-sector jobs (federal, state, and local) associated with each $1 million in final demand or 100 direct jobs in an industry. This measure differs across industries based on the relative wage of the industry. To generate the inputs for this calculation, I multiply each industry's hourly wage by 2,000 to express it as a full-time, full-year salary. For federal taxes, I multiply this figure by 0.2, and for state and local taxes, by 0.1. These provide rough measures of the federal tax revenue and the state and local tax revenue supported by each job in an industry.

I then use BEA data on tax receipts from federal, state, and local governments and BLS CES data on employment counts in these governments to measure how much tax revenue is required to support a public-sector employee in federal employment and how much tax revenue is required to support a public-sector employee in state and local government employment. For each of these two categories of public-sector employment (federal; state and local), I divide the tax revenue generated by each $1 million in final demand or 100 direct jobs in a given industry by this per-employee wage bill, and then sum the two totals, to get a measure of total public-sector employment generated.

APPENDIX TABLE A1

Employment multipliers per 100 direct jobs, all private-sector industries

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
Agriculture, forest, fishing, and hunting					
1	Crop production	100.0	74.4	55.2	129.6
2	Animal production and aquaculture	100.0	112.4	68.0	180.4
3	Forestry	100.0	285.7	124.3	410.0
4	Logging	100.0	150.1	88.1	238.2
5	Fishing, hunting, and trapping	100.0	116.5	59.2	175.7
6	Support activities for agriculture and forestry	100.0	79.7	51.2	130.9
Mining					
7	Oil and gas extraction	100.0	376.0	161.3	537.3
8	Coal mining	100.0	330.8	169.6	500.4
9	Metal ore mining	100.0	318.2	154.7	472.9
10	Nonmetallic mineral mining and quarrying	100.0	138.4	96.6	235.0
11	Support activities for mining	100.0	121.4	105.4	226.9
Utilities					
12	Electric power generation, transmission, and distribution	100.0	399.1	165.2	564.3
13	Natural gas distribution	100.0	456.5	182.3	638.8
14	Water, sewage, and other systems	100.0	1,561.7	301.8	1,863.5
Construction					
15	Construction	100.0	88.0	89.6	177.6
Nondurable manufacturing					
16	Animal food manufacturing	100.0	688.1	290.6	978.7
17	Grain and oilseed milling	100.0	1,064.1	424.8	1,488.9
18	Sugar and confectionery product manufacturing	100.0	212.9	118.4	331.3
19	Fruit and vegetable preserving and specialty food manufacturing	100.0	269.4	143.4	412.8
20	Dairy product manufacturing	100.0	559.4	255.4	814.9
21	Animal slaughtering and processing	100.0	254.7	126.3	380.9
22	Seafood product preparation and packaging	100.0	134.3	84.6	218.9
23	Bakeries and tortilla manufacturing	100.0	170.5	100.1	270.6
24	Other food manufacturing	100.0	335.9	158.3	494.2
25	Beverage manufacturing	100.0	314.7	159.1	473.8
26	Tobacco manufacturing	100.0	3,394.0	646.2	4,040.2
27	Textile mills and textile product mills	100.0	109.9	94.2	204.1
28	Apparel, leather, and allied product manufacturing	100.0	168.4	122.8	291.2
29	Sawmills and wood preservation	100.0	177.8	112.1	289.9
30	Veneer, plywood, and engineered wood product manufacturing	100.0	137.0	103.2	240.2
31	Other wood product manufacturing	100.0	97.3	86.2	183.5
32	Pulp, paper, and paperboard mills	100.0	468.3	218.3	686.6
33	Converted paper product manufacturing	100.0	186.3	132.7	319.0
34	Printing and related support activities	100.0	92.1	91.3	183.4
35	Petroleum and coal products manufacturing	100.0	945.9	504.7	1,450.7
36	Basic chemical manufacturing	100.0	822.0	329.1	1,151.1

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
37	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	100.0	635.7	321.9	957.6
38	Pesticide, fertilizer, and other agricultural chemical manufacturing	100.0	510.0	220.0	730.0
39	Pharmaceutical and medicine manufacturing	100.0	394.4	180.4	574.8
40	Paint, coating, and adhesive manufacturing	100.0	294.7	175.8	470.5
41	Soap, cleaning compound, and toilet preparation manufacturing	100.0	360.1	134.9	495.1
42	Other chemical product and preparation manufacturing	100.0	262.6	174.1	436.6
43	Plastics product manufacturing	100.0	167.3	111.0	278.3
44	Rubber product manufacturing	100.0	143.5	102.4	245.9
Durable manufacturing					
45	Clay product and refractory manufacturing	100.0	78.6	80.7	159.3
46	Glass and glass product manufacturing	100.0	126.0	96.0	222.0
47	Cement and concrete product manufacturing	100.0	105.5	90.4	195.9
48	Lime, gypsum, and other nonmetallic mineral product manufacturing	100.0	173.7	106.6	280.3
49	Iron and steel mills and ferroalloy manufacturing	100.0	618.2	305.6	923.7
50	Steel product manufacturing from purchased steel	100.0	849.4	439.7	1,289.1
51	Alumina and aluminum production and processing	100.0	214.3	145.0	359.2
52	Nonferrous metal (except aluminum) production and processing	100.0	306.5	169.8	476.2
53	Foundries	100.0	106.6	91.6	198.2
54	Forging and stamping	100.0	186.9	129.3	316.2
55	Cutlery and handtool manufacturing	100.0	166.9	118.1	285.1
56	Architectural and structural metals manufacturing	100.0	115.7	100.3	216.0
57	Boiler, tank, and shipping container manufacturing	100.0	172.6	124.8	297.4
58	Hardware manufacturing	100.0	161.6	118.9	280.5
59	Spring and wire product manufacturing	100.0	132.7	111.5	244.2
60	Machine shops; turned product; and screw, nut, and bolt manufacturing	100.0	85.5	87.8	173.4
61	Coating, engraving, heat treating, and allied activities	100.0	91.5	80.5	172.0
62	Other fabricated metal product manufacturing	100.0	139.1	107.9	247.0
63	Agriculture, construction, and mining machinery manufacturing	100.0	248.3	166.7	415.0
64	Industrial machinery manufacturing	100.0	155.1	149.2	304.4
65	Commercial and service industry machinery manufacturing	100.0	215.1	154.0	369.1
66	HVAC equipment manufacturing	100.0	157.8	111.1	268.9
67	Metalworking machinery manufacturing	100.0	107.9	105.2	213.1
68	Engine, turbine, and power transmission equipment manufacturing	100.0	275.3	186.9	462.2
69	Other general purpose machinery manufacturing	100.0	200.3	142.4	342.7
70	Computer and peripheral equipment manufacturing	100.0	56.3	102.5	158.8
71	Communications equipment manufacturing	100.0	128.4	128.5	256.9
72	Audio and video equipment manufacturing	100.0	155.4	117.1	272.5
73	Semiconductor and other electronic component manufacturing	100.0	92.9	99.3	192.2
74	Navigational, measuring, electromedical, and control instruments manufacturing	100.0	158.7	129.7	288.4
75	Manufacturing and reproducing magnetic and optical media	100.0	123.7	137.7	261.4
76	Electric lighting equipment manufacturing	100.0	124.2	120.7	244.9

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
77	Household appliance manufacturing	100.0	141.8	124.5	266.3
78	Electrical equipment manufacturing	100.0	117.8	104.8	222.6
79	Other electrical equipment and component manufacturing	100.0	166.8	114.5	281.3
80	Motor vehicle manufacturing	100.0	935.8	492.1	1,428.0
81	Motor vehicle body and trailer manufacturing	100.0	251.1	180.6	431.7
82	Motor vehicle parts manufacturing	100.0	209.8	161.2	371.0
83	Aerospace product and parts manufacturing	100.0	180.2	156.0	336.2
84	Railroad rolling stock manufacturing	100.0	229.6	186.3	415.9
85	Ship and boat building	100.0	113.9	114.9	228.8
86	Other transportation equipment manufacturing	100.0	342.1	206.7	548.8
87	Household and institutional furniture and kitchen cabinet manufacturing	100.0	74.7	75.3	150.0
88	Office furniture (including fixtures) manufacturing	100.0	124.9	92.0	217.0
89	Other furniture-related product manufacturing	100.0	163.0	107.5	270.6
90	Medical equipment and supplies manufacturing	100.0	153.2	108.3	261.4
91	Other miscellaneous manufacturing	100.0	160.4	116.8	277.2
Wholesale trade					
92	Wholesale trade	100.0	107.3	95.1	202.5
Retail trade					
93	Motor vehicle and parts dealers	100.0	52.2	64.6	116.8
94	Food and beverage stores	100.0	30.6	40.6	71.2
95	General merchandise stores	100.0	30.7	42.6	73.4
96	Other retail	100.0	57.9	57.6	115.5
Transportation and warehousing					
97	Air transportation	100.0	161.3	116.5	277.8
98	Rail transportation	100.0	161.6	100.1	261.7
99	Water transportation	100.0	545.5	228.4	773.9
100	Truck transportation	100.0	108.2	83.1	191.3
101	Transit and ground passenger transportation	100.0	109.9	61.3	171.3
102	Pipeline transportation	100.0	218.5	99.3	317.8
103	Scenic and sightseeing transportation and support activities for transportation	100.0	134.5	87.9	222.4
104	Couriers and messengers	100.0	84.5	72.6	157.1
105	Warehousing and storage	100.0	53.2	58.5	111.7
Information					
106	Newspaper, periodical, book, and directory publishers	100.0	154.7	113.6	268.3
107	Software publishers	100.0	193.6	180.3	373.8
108	Motion picture, video, and sound recording industries	100.0	96.5	96.4	192.9
109	Radio and television broadcasting	100.0	195.3	141.2	336.5
110	Cable and other subscription programming	100.0	711.8	314.1	1,025.9
111	Wired telecommunications carriers	100.0	284.0	161.7	445.7
112	Wireless telecommunications carriers (except satellite)	100.0	936.9	374.2	1,311.1
113	Satellite, telecommunications resellers, and all other telecommunications	100.0	266.7	171.9	438.6

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
114	Data processing, hosting, and related services	100.0	337.3	233.0	570.3
115	Other information services	100.0	218.0	164.5	382.5
Finance and insurance					
116	Monetary authorities, credit intermediation, and related activities	100.0	112.7	100.4	213.1
117	Securities, commodity contracts, funds, trusts, and related activities	100.0	293.6	216.4	510.0
118	Insurance carriers	100.0	189.4	146.4	335.8
119	Agencies, brokerages, and other insurance related activities	100.0	63.2	88.8	152.0
Real estate and rental leasing					
120	Real estate	100.0	382.0	165.9	547.9
121	Automotive equipment rental and leasing	100.0	376.3	194.3	570.6
122	Consumer goods rental and general rental centers	100.0	150.1	96.0	246.1
123	Commercial and industrial machinery and equipment rental and leasing	100.0	344.9	178.9	523.8
124	Lessors of nonfinancial intangible assets (except copyrighted works)	100.0	4,374.7	1,625.0	5,999.7
Professional, scientific, and technical services					
125	Legal services	100.0	89.2	111.3	200.5
126	Accounting, tax preparation, bookkeeping, and payroll services	100.0	52.0	81.3	133.4
127	Architectural, engineering, and related services	100.0	90.0	114.1	204.1
128	Specialized design services	100.0	67.5	97.4	164.9
129	Computer systems design and related services	100.0	134.1	149.3	283.4
130	Management, scientific, and technical consulting services	100.0	91.1	116.5	207.6
131	Scientific research and development services	100.0	519.3	323.7	842.9
132	Advertising, public relations, and related services	100.0	460.9	270.7	731.6
133	Other professional, scientific, and technical services	100.0	70.8	83.6	154.3
Management of companies					
134	Management of companies and enterprises	100.0	144.4	138.6	283.1
Administrative and support services and waste management					
135	Office administrative services	100.0	51.9	88.4	140.3
136	Facilities support services	100.0	140.2	96.5	236.7
137	Employment services	100.0	31.3	50.1	81.4
138	Business support services	100.0	54.6	62.2	116.7
139	Travel arrangement and reservation services	100.0	133.7	106.3	240.0
140	Investigation and security services	100.0	30.8	47.0	77.9
141	Services to buildings and dwellings	100.0	29.8	46.3	76.1
142	Other support services	100.0	119.9	95.8	215.7
143	Waste management and remediation services	100.0	131.4	99.7	231.1
Educational services					
144	Elementary and secondary schools (private)	100.0	24.3	65.2	89.5
145	Junior colleges, colleges, universities, and professional schools (private)	100.0	93.9	88.1	182.0
146	Other educational services (private)	100.0	47.7	73.7	121.4
Health care and social assistance					
147	Offices of physicians	100.0	87.5	115.3	202.8
148	Offices of dentists	100.0	56.9	86.0	142.9

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
149	Offices of other health practitioners	100.0	43.1	68.3	111.4
150	Outpatient care centers	100.0	72.1	88.0	160.1
151	Medical and diagnostic laboratories	100.0	84.6	92.0	176.6
152	Home health care services	100.0	41.6	56.5	98.1
153	Other ambulatory health care services	100.0	81.9	78.1	160.0
154	Hospitals (private)	100.0	123.7	112.7	236.5
155	Nursing and residential care facilities	100.0	44.6	52.1	96.7
156	Individual and family services	100.0	22.9	43.7	66.6
157	Community and vocational rehabilitation services	100.0	60.5	59.8	120.3
158	Child day care services	100.0	23.8	38.8	62.7
Arts, entertainment, and recreation					
159	Performing arts companies	100.0	208.9	151.6	360.5
160	Spectator sports	100.0	132.5	114.4	246.9
161	Promoters of events, and agents and managers	100.0	265.6	181.4	447.0
162	Independent artists, writers, and performers	100.0	73.7	99.7	173.5
163	Museums, historical sites, and similar institutions	100.0	75.7	76.5	152.2
164	Amusement parks and arcades	100.0	59.7	49.0	108.7
165	Gambling industries (except casino hotels)	100.0	817.9	228.6	1,046.5
166	Other amusement and recreation industries	100.0	52.5	55.2	107.6
Accommodation and food services					
167	Accommodation	100.0	78.2	62.8	141.0
168	Food services and drinking places	100.0	49.6	46.8	96.4
Other services (except public administration)					
169	Automotive repair and maintenance	100.0	125.5	88.8	214.3
170	Electronic and precision equipment repair and maintenance	100.0	281.2	166.5	447.7
171	Commercial and industrial machinery and equipment repair and maintenance	100.0	171.1	119.5	290.6
172	Personal and household goods repair and maintenance	100.0	200.7	115.1	315.8
173	Personal care services	100.0	30.6	47.4	77.9
174	Death care services	100.0	38.7	57.1	95.8
175	Drycleaning and laundry services	100.0	66.6	53.0	119.6
176	Other personal services	100.0	130.2	74.6	204.8
177	Religious organizations	100.0	32.7	55.6	88.2
178	Grantmaking and giving services and social advocacy organizations	100.0	56.7	87.6	144.3
179	Civic, social, professional, and similar organizations	100.0	31.0	67.2	98.2

Economic Policy Institute

* Includes materials and capital services supplier jobs

** Includes jobs supported by respending of income from direct jobs and supplier jobs, as well as public-sector jobs supported by tax revenue

Note: See methods appendix for derivation.

Source: EPI analysis of data from the Bureau of Labor Statistics (BLS) Employment Requirements Matrices, the BLS Current Employment Statistics program, and the Bureau of Economic Analysis GDP-by-industry accounts

APPENDIX TABLE A2

Employment multipliers per $1 million in final demand, all private-sector industries

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
Agriculture, forestry, fishing, and hunting					
1	Crop production	6.96	5.18	3.84	9.02
2	Animal production and aquaculture	5.13	5.77	3.49	9.26
3	Forestry	2.62	7.49	3.26	10.74
4	Logging	5.45	8.18	4.80	12.98
5	Fishing, hunting, and trapping	3.03	3.53	1.79	5.32
6	Support activities for agriculture and forestry	5.09	4.06	2.61	6.66
Mining					
7	Oil and gas extraction	0.72	2.72	1.17	3.89
8	Coal mining	1.27	4.19	2.15	6.34
9	Metal ore mining	1.17	3.73	1.81	5.54
10	Nonmetallic mineral mining and quarrying	2.69	3.72	2.60	6.31
11	Support activities for mining	3.55	4.31	3.74	8.06
Utilities					
12	Electric power generation, transmission, and distribution	1.06	4.23	1.75	5.98
13	Natural gas distribution	0.99	4.52	1.80	6.32
14	Water, sewage, and other systems	0.67	10.46	2.02	12.48
Construction					
15	Construction	5.45	4.80	4.88	9.68
Nondurable manufacturing					
16	Animal food manufacturing	0.98	6.72	2.84	9.55
17	Grain and oilseed milling	0.69	7.38	2.95	10.33
18	Sugar and confectionery product manufacturing	2.59	5.52	3.07	8.58
19	Fruit and vegetable preserving and specialty food manufacturing	2.50	6.75	3.59	10.34
20	Dairy product manufacturing	1.39	7.80	3.56	11.36
21	Animal slaughtering and processing	2.80	7.13	3.54	10.67
22	Seafood product preparation and packaging	3.44	4.62	2.91	7.53
23	Bakeries and tortilla manufacturing	4.40	7.50	4.40	11.90
24	Other food manufacturing	1.87	6.29	2.96	9.25
25	Beverage manufacturing	1.95	6.13	3.10	9.23
26	Tobacco manufacturing	0.22	7.52	1.43	8.96
27	Textile mills and textile product mills	3.81	4.19	3.59	7.78
28	Apparel, leather, and allied product manufacturing	3.50	5.89	4.30	10.19
29	Sawmills and wood preservation	3.42	6.08	3.83	9.91
30	Veneer, plywood, and engineered wood product manufacturing	3.93	5.38	4.05	9.43
31	Other wood product manufacturing	4.88	4.75	4.20	8.95
32	Pulp, paper, and paperboard mills	1.24	5.79	2.70	8.50
33	Converted paper product manufacturing	2.47	4.60	3.27	7.87
34	Printing and related support activities	4.88	4.49	4.46	8.95
35	Petroleum and coal products manufacturing	0.22	2.08	1.11	3.20
36	Basic chemical manufacturing	0.69	5.63	2.25	7.89

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
37	Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	0.73	4.67	2.36	7.03
38	Pesticide, fertilizer, and other agricultural chemical manufacturing	0.89	4.54	1.96	6.49
39	Pharmaceutical and medicine manufacturing	1.14	4.49	2.06	6.55
40	Paint, coating, and adhesive manufacturing	1.50	4.43	2.64	7.08
41	Soap, cleaning compound, and toilet preparation manufacturing	1.39	5.01	1.88	6.89
42	Other chemical product and preparation manufacturing	1.60	4.20	2.79	6.99
43	Plastics product manufacturing	2.93	4.90	3.25	8.15
44	Rubber product manufacturing	3.15	4.53	3.23	7.76
Durable manufacturing					
45	Clay product and refractory manufacturing	5.31	4.17	4.28	8.46
46	Glass and glass product manufacturing	3.71	4.68	3.56	8.24
47	Cement and concrete product manufacturing	4.32	4.56	3.91	8.47
48	Lime, gypsum, and other nonmetallic mineral product manufacturing	2.85	4.95	3.04	7.99
49	Iron and steel mills and ferroalloy manufacturing	0.81	5.01	2.47	7.48
50	Steel product manufacturing from purchased steel	0.80	6.79	3.51	10.30
51	Alumina and aluminum production and processing	2.03	4.35	2.94	7.29
52	Nonferrous metal (except aluminum) production and processing	1.40	4.29	2.38	6.67
53	Foundries	4.01	4.28	3.67	7.95
54	Forging and stamping	2.47	4.62	3.20	7.81
55	Cutlery and handtool manufacturing	2.87	4.79	3.39	8.18
56	Architectural and structural metals manufacturing	4.00	4.63	4.01	8.63
57	Boiler, tank, and shipping container manufacturing	2.51	4.34	3.13	7.47
58	Hardware manufacturing	2.83	4.57	3.36	7.93
59	Spring and wire product manufacturing	3.62	4.81	4.04	8.85
60	Machine shops; turned product; and screw, nut, and bolt manufacturing	5.03	4.30	4.41	8.71
61	Coating, engraving, heat treating, and allied activities	4.63	4.23	3.73	7.96
62	Other fabricated metal product manufacturing	3.29	4.58	3.55	8.12
63	Agriculture, construction, and mining machinery manufacturing	1.87	4.64	3.11	7.75
64	Industrial machinery manufacturing	2.83	4.38	4.22	8.60
65	Commercial and service industry machinery manufacturing	2.26	4.85	3.47	8.33
66	HVAC equipment manufacturing	2.89	4.56	3.21	7.76
67	Metalworking machinery manufacturing	4.36	4.70	4.59	9.29
68	Engine, turbine, and power transmission equipment manufacturing	1.75	4.83	3.28	8.10
69	Other general purpose machinery manufacturing	2.28	4.57	3.25	7.82
70	Computer and peripheral equipment manufacturing	4.37	2.46	4.48	6.95
71	Communications equipment manufacturing	1.65	2.12	2.12	4.24
72	Audio and video equipment manufacturing	3.05	4.74	3.58	8.32
73	Semiconductor and other electronic component manufacturing	2.96	2.75	2.93	5.68
74	Navigational, measuring, electromedical, and control instruments manufacturing	2.13	3.38	2.76	6.14
75	Manufacturing and reproducing magnetic and optical media	2.76	3.42	3.80	7.22
76	Electric lighting equipment manufacturing	3.67	4.56	4.43	9.00

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
77	Household appliance manufacturing	3.23	4.58	4.02	8.60
78	Electrical equipment manufacturing	3.35	3.94	3.51	7.45
79	Other electrical equipment and component manufacturing	2.45	4.09	2.81	6.90
80	Motor vehicle manufacturing	0.50	4.71	2.48	7.19
81	Motor vehicle body and trailer manufacturing	2.02	5.08	3.65	8.73
82	Motor vehicle parts manufacturing	2.03	4.26	3.27	7.53
83	Aerospace product and parts manufacturing	2.13	3.85	3.33	7.17
84	Railroad rolling stock manufacturing	1.91	4.39	3.56	7.96
85	Ship and boat building	3.93	4.47	4.51	8.98
86	Other transportation equipment manufacturing	1.38	4.72	2.85	7.57
87	Household and institutional furniture and kitchen cabinet manufacturing	6.59	4.93	4.97	9.89
88	Office furniture (including fixtures) manufacturing	4.02	5.03	3.70	8.73
89	Other furniture-related product manufacturing	3.51	5.71	3.77	9.48
90	Medical equipment and supplies manufacturing	3.03	4.63	3.28	7.91
91	Other miscellaneous manufacturing	3.35	5.38	3.92	9.30
Wholesale trade					
92	Wholesale trade	3.79	4.07	3.61	7.68
Retail trade					
93	Motor vehicle and parts dealers	7.37	3.85	4.76	8.61
94	Food and beverage stores	13.62	4.17	5.53	9.70
95	General merchandise stores	13.77	4.23	5.87	10.10
96	Other retail	8.57	4.96	4.93	9.89
Transportation and warehousing					
97	Air transportation	2.50	4.03	2.91	6.93
98	Rail transportation	2.64	4.27	2.64	6.91
99	Water transportation	1.06	5.80	2.43	8.22
100	Truck transportation	5.01	5.42	4.16	9.58
101	Transit and ground passenger transportation	8.04	8.84	4.93	13.77
102	Pipeline transportation	1.46	3.18	1.45	4.63
103	Scenic and sightseeing transportation and support activities for transportation	4.99	6.71	4.39	11.11
104	Couriers and messengers	6.90	5.83	5.01	10.83
105	Warehousing and storage	9.18	4.88	5.37	10.25
Information					
106	Newspaper, periodical, book, and directory publishers	3.44	5.33	3.91	9.24
107	Software publishers	1.96	3.80	3.54	7.34
108	Motion picture, video, and sound recording industries	3.42	3.30	3.29	6.59
109	Radio and television broadcasting	2.24	4.38	3.17	7.55
110	Cable and other subscription programming	0.62	4.38	1.93	6.32
111	Wired telecommunications carriers	1.49	4.24	2.41	6.65
112	Wireless telecommunications carriers (except satellite)	0.50	4.71	1.88	6.58
113	Satellite, telecommunications resellers, and all other telecommunications	1.65	4.41	2.84	7.25

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
114	Data processing, hosting, and related services	1.92	6.46	4.47	10.93
115	Other information services	2.37	5.17	3.90	9.07
Finance and insurance					
116	Monetary authorities, credit intermediation, and related activities	3.73	4.20	3.74	7.94
117	Securities, commodity contracts, funds, trusts, and related activities	1.78	5.23	3.85	9.08
118	Insurance carriers	2.55	4.83	3.73	8.56
119	Agencies, brokerages, and other insurance related activities	6.44	4.07	5.72	9.79
Real estate and rental leasing					
120	Real estate	1.40	5.34	2.32	7.66
121	Automotive equipment rental and leasing	1.61	6.05	3.12	9.17
122	Consumer goods rental and general rental centers	4.55	6.82	4.36	11.19
123	Commercial and industrial machinery and equipment rental and leasing	1.41	4.87	2.53	7.39
124	Lessors of nonfinancial intangible assets (except copyrighted works)	0.13	5.77	2.14	7.91
Professional, scientific, and technical services					
125	Legal services	4.07	3.63	4.53	8.16
126	Accounting, tax preparation, bookkeeping, and payroll services	6.42	3.34	5.22	8.56
127	Architectural, engineering, and related services	5.41	4.87	6.17	11.04
128	Specialized design services	7.48	5.05	7.29	12.34
129	Computer systems design and related services	4.03	5.41	6.02	11.43
130	Management, scientific, and technical consulting services	5.12	4.66	5.96	10.63
131	Scientific research and development services	1.29	6.68	4.17	10.85
132	Advertising, public relations, and related services	1.43	6.58	3.87	10.45
133	Other professional, scientific, and technical services	6.10	4.32	5.10	9.41
Management of companies					
134	Management of companies and enterprises	3.59	5.18	4.97	10.16
Administrative and support services and waste management					
135	Office administrative services	7.71	4.00	6.81	10.81
136	Facilities support services	4.44	6.23	4.29	10.52
137	Employment services	12.79	4.01	6.41	10.41
138	Business support services	10.99	6.00	6.83	12.83
139	Travel arrangement and reservation services	4.59	6.13	4.88	11.00
140	Investigation and security services	14.74	4.54	6.93	11.47
141	Services to buildings and dwellings	15.18	4.52	7.03	11.55
142	Other support services	5.77	6.92	5.53	12.45
143	Waste management and remediation services	4.30	5.66	4.29	9.95
Educational services					
144	Elementary and secondary schools (private)	19.35	4.71	12.61	17.32
145	Junior colleges, colleges, universities, and professional schools (private)	6.15	5.77	5.41	11.19
146	Other educational services (private)	10.29	4.91	7.58	12.49
Health care and social assistance					
147	Offices of physicians	5.10	4.47	5.88	10.35
148	Offices of dentists	7.15	4.06	6.15	10.21

	Industry	Direct jobs	Supplier jobs*	Induced jobs**	Total indirect jobs
149	Offices of other health practitioners	9.40	4.05	6.42	10.48
150	Outpatient care centers	6.93	5.00	6.10	11.10
151	Medical and diagnostic laboratories	5.38	4.55	4.94	9.49
152	Home health care services	13.32	5.54	7.53	13.07
153	Other ambulatory health care services	6.06	4.97	4.73	9.70
154	Hospitals (private)	4.86	6.01	5.48	11.49
155	Nursing and residential care facilities	13.25	5.91	6.91	12.82
156	Individual and family services	22.36	5.12	9.77	14.89
157	Community and vocational rehabilitation services	9.73	5.89	5.82	11.70
158	Child day care services	21.17	5.04	8.23	13.27
Arts, entertainment, and recreation					
159	Performing arts companies	3.55	7.41	5.38	12.78
160	Spectator sports	3.43	4.55	3.93	8.47
161	Promoters of events, and agents and managers	2.98	7.92	5.41	13.33
162	Independent artists, writers, and performers	6.90	5.09	6.88	11.97
163	Museums, historical sites, and similar institutions	8.25	6.24	6.31	12.55
164	Amusement parks and arcades	7.37	4.40	3.61	8.01
165	Gambling industries (except casino hotels)	1.20	9.83	2.75	12.57
166	Other amusement and recreation industries	12.31	6.46	6.79	13.25
Accommodation and food services					
167	Accommodation	7.05	5.51	4.43	9.94
168	Food services and drinking places	13.15	6.53	6.15	12.67
Other services (except public administration)					
169	Automotive repair and maintenance	5.41	6.79	4.80	11.59
170	Electronic and precision equipment repair and maintenance	2.37	6.65	3.94	10.59
171	Commercial and industrial machinery and equipment repair and maintenance	3.18	5.44	3.80	9.24
172	Personal and household goods repair and maintenance	3.50	7.03	4.03	11.06
173	Personal care services	12.78	3.90	6.05	9.95
174	Death care services	6.20	2.40	3.54	5.94
175	Drycleaning and laundry services	9.06	6.03	4.80	10.83
176	Other personal services	4.39	5.72	3.28	9.00
177	Religious organizations	18.85	6.16	10.47	16.63
178	Grantmaking and giving services and social advocacy organizations	6.89	3.90	6.03	9.93
179	Civic, social, professional, and similar organizations	10.67	3.31	7.17	10.48

Economic Policy Institute

* Includes materials and capital services supplier jobs

** Includes jobs supported by respending of income from direct jobs and supplier jobs, as well as public-sector jobs supported by tax revenue

Note: Methods described in appendix.

Source: EPI analysis of data from the Bureau of Labor Statistics (BLS) Employment Requirements Matrices, the BLS Current Employment Statistics program, and the Bureau of Economic Analysis GDP-by-industry accounts

Endnotes

1. This might seem too conservative at first glance, as most workers aren't able to save half of their earnings. But this respending multiplier also includes the effect of taxes on earnings (which reduces the share of gross earnings available to be spent by workers on consumption goods) as well as the effect of imports—spending by workers that does not support demand in other domestic sectors of the economy. Even accounting for these effects, 0.5 might be too small. However, changing this parameter does not change the ranking of industries' importance in generating induced jobs, just the raw numbers.

2. The spreadsheet is downloadable at **go.epi.org/jobmultiplierdata**.

References

Bivens, Josh. 2003. "**Updated Employment Multipliers for the U.S. Economy**." Economic Policy Institute Working Paper no. 268.

Baker, Dean, and Thea Lee. 1993. "**Employment Multipliers for the U.S. Economy**." Economic Policy Institute Working Paper no. 107.

Bureau of Labor Statistics (U.S. Department of Labor) Employment Requirements Matrix. 2017. "**Historical Employment Requirements Tables, 1997–2016**."

Bureau of Labor Statistics (U.S. Department of Labor) Current Employment Statistics program. Various years. **Employment, Hours and Earnings—National** [database].

Bureau of Economic Analysis (BEA). **National Income and Product Accounts** (NIPA), Tables 3.2 and 3.3. Accessed November 2018.

Bureau of Economic Analysis (BEA). **GDP-by-Industry**, KLEMS data. Accessed November 2018.

https://www.nist.gov/itl/ai-risk-management-framework

National Institute of Standards and Technology
U.S. Department of Commerce

Information Technology Laboratory (https://www.nist.gov/itl)

AI Risk Management Framework

Quick Links

Download the AI RMF 1.0 (https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf) View the AI RMF Playbook (https://airc.nist.gov/airmf-resources/playbook/) Visit the AI Resource Center (https://airc.nist.gov/)

Overview of the AI RMF

In collaboration with the private and public sectors, NIST has developed a framework to better manage risks to individuals, organizations, and society associated with artificial intelligence (AI). The NIST AI Risk Management Framework (AI RMF) (https://doi.org/10.6028/NIST.AI.100-1) is intended for voluntary use and to improve the ability to incorporate trustworthiness considerations into the design, development, use, and evaluation of AI products, services, and systems.

Released on January 26, 2023, the Framework was developed through a consensus-driven, open, transparent, and collaborative process that included a Request for Information, several draft versions for public comments, multiple workshops (https://www.nist.gov/artificial-intelligence/nist-ai-engagement), and other opportunities to provide input. It is intended to build on, align with, and support AI risk management efforts by others (Fact Sheet (https://www.nist.gov/document/about-nist-ai-rmf)).

A companion NIST AI RMF Playbook (https://airc.nist.gov/AI_RMF_Knowledge_Base/Playbook) also has been published by NIST along with an AI RMF Roadmap (https://www.nist.gov/itl/ai-risk-management-framework/roadmap-nist-artificial-intelligence-risk-management-framework-ai), AI RMF Crosswalk (https://www.nist.gov/itl/ai-risk-management-framework/crosswalks-nist-artificial-intelligence-risk-management-framework), and various Perspectives (https://www.nist.gov/itl/ai-risk-management-framework/perspectives-about-nist-artificial-intelligence-risk-management).

On March 30, 2023, NIST launched the Trustworthy and Responsible AI Resource Center (https://airc.nist.gov/Home), which will facilitate implementation of, and international alignment with, the AI RMF. Examples of how other organizations are building on and using the AI RMF can be found via the AIRC's Use Case page (https://airc.nist.gov/Usecases).

On July 26, 2024, NIST released NIST-AI-*600-1, Artificial Intelligence Risk Management Framework: Generative Artificial Intelligence Profile* (https://doi.org/10.6028/NIST.AI.600-1). The profile can help organizations identify unique risks posed by generative AI and proposes actions for generative AI risk management that best aligns with their goals and priorities.

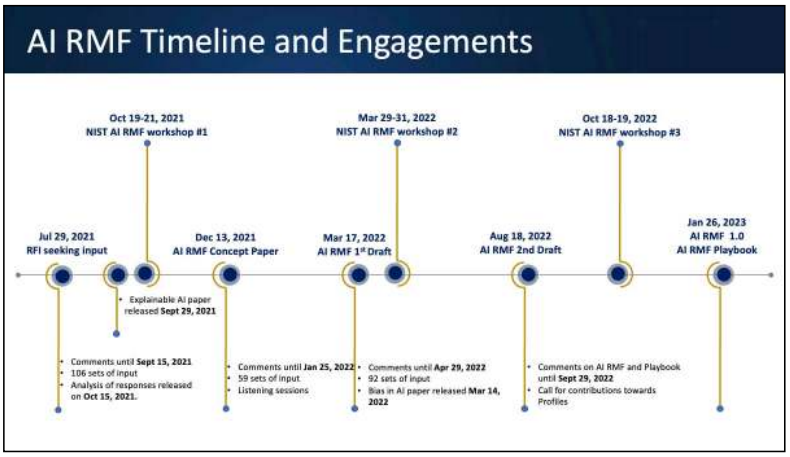
To view public comments received on the previous drafts of the AI RMF and Requests for Information, see the AI RMF Development (https://www.nist.gov/itl/ai-risk-management-framework/ai-rmf-development) page.

Translations (https://www.nist.gov)

- NIST AI Risk Management Framework (https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.ara.pdf) (Arabic)
- NIST AI Risk Management Framework (https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.jpn.pdf)(Japanese)

Prior Documents

- Second draft of the AI Risk Management Framework (https://www.nist.gov/document/ai-risk-management-framework-2nd-draft) (August 18, 2022)
- Initial draft of the AI Risk Management Framework (https://www.nist.gov/document/ai-risk-management-framework-initial-draft) (March 17, 2022)
- Concept paper to help guide development of the AI Risk Management Framework (https://www.nist.gov/document/airmfconceptpaper) (December 13, 2021)
- Brief summary (https://www.nist.gov/document/summary-analysis-responses-nist-artificial-intelligence-risk-management-framework-ai-rmf) of responses (https://www.nist.gov/itl/ai-risk-management-framework/comments-received-rfi-artificial-intelligence-risk-management) to the July 29, 2021, RFI (October 15, 2021)
- Draft -Taxonomy of AI Risk (https://www.nist.gov/document/draft-taxonomy-ai-risk-october-15-2021) (October 15, 2021)
- AI Risk Management Framework Request for Information (https://www.federalregister.gov/documents/2021/07/29/2021-16176/artificial-intelligence-risk-management-framework) (July 29, 2021)



News & Updates



NIST Risk Management Framework Aims to Improve Trustworthiness of Artificial Intelligence (https://www.nist.gov/news-events/news/2023/01/nist-risk-management-framework-aims-improve-trustworthiness-artificial)

January 26, 2023

New guidance seeks to cultivate trust in AI technologies and promote AI innovation while mitigating risk.



NIST Seeks Comments on AI Risk Management Framework Guidance, Workshop Date Set (https://www.nist.gov/news-events/news/2022/08/nist-seeks-comments-ai-risk-management-framework-guidance-workshop-date-set)

August 18, 2022

NIST is seeking comments on a second draft of the NIST Artificial Intelligence Risk Management Framework (AI RMF). The AI RMF is intended for voluntary use in...



Symposium Focuses on AI and the Economy and the Path for Responsible and Inclusive AI (https://www.nist.gov/news-events/news/2022/04/symposium-focuses-ai-and-economy-and-path-responsible-and-inclusive-ai)

April 27, 2022

The U.S. Department of Commerce, NIST, FinRegLab, and the Stanford Institute for Human-Centered Artificial Intelligence (HAI) hosted a symposium on "Artificial...



NIST Seeks Comments on Draft AI Risk Management Framework, Offers Guidance on AI Bias (https://www.nist.gov/news-events/news/2022/03/nist-seeks-comments-draft-ai-risk-management-framework-offers-guidance-ai)

March 17, 2022

Seeking to promote the development and use of artificial intelligence (AI) technologies and systems that are trustworthy and responsible, NIST today released...

View All News and Updates (https://www.nist.gov/news-events/news-updates/tag/2791391)

Was this page helpful? (https://www.nist.gov/webform/page_feedback?page=https://www.nist.gov/itl/ai-risk-management-framework&page_title=AI Risk Management Framework&source_entity_type=node&source_entity_id=1674601)

Exhibit C.II - Second Prong: Specialized courses



5 courses

Jan 13, 2018

JOSÉ EVANDEILTON LOPES

successfully completed the Integrated online course Program (non-credit)

Mastering Software Development in R

This Specialization covers the R programming environment and language and R package and visualization tool development. By the time you're finished, you'll be fluent in R and will be able to solve real-world problems by building new software tools and packages in R.

The R Programming Environment

Advanced R Programming

Building R Packages

Building Data Visualization Tools

Mastering Software Development in R Capstone

Roger D. Peng, PhD
Professor of Statistics and Data Sciences
University of Texas, Austin

Brooke Anderson, PhD
Assistant Professor
Environmental & Radiological Health Sciences
Colorado State University

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
https://coursera.org/verify/specialization/F7377XZMMETK

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



_____ Date: July 31, 2025.

5 cursos

- The R Programming Environment
- Advanced R Programming
- Building R Packages
- Building Data Visualization Tools
- Mastering Software Development in R Capstone

Jan 13, 2018

JOSÉ EVANDEILTON LOPES

concluiu com sucesso o Programa de cursos integrados on-line (sem créditos)

Mastering Software Development in R

This Specialization covers the R programming environment and language and R package and visualization tool development. By the time you're finished, you'll be fluent in R and will be able to solve real-world problems by building new software tools and packages in R.

Roger D. Peng, PhD
Professor of Statistics and Data Sciences
University of Texas, Austin

Brooke Anderson, PhD
Assistant Professor
Environmental & Radiological Health Sciences
Colorado State University

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verifique este certificado em:
https://coursera.org/verify/specialization/F7377XZMMETK



5 courses

Feb 12, 2018

JOSÉ EVANDEILTON LOPES

successfully completed the Integrated online course Program (non-credit)

Christopher Brooks
Associate Professor of Information
School of Information

Applied Data Science with Python

262

- **Introduction to Data Science in Python**
- **Applied Plotting, Charting & Data Representation in Python**
- **Applied Machine Learning in Python**
- **Applied Text Mining in Python**
- **Applied Social Network Analysis in Python**

The 5 courses in this University of Michigan specialization introduce learners to data science through the python programming language. This skills-based specialization is intended for learners who have a basic python or programming background, and want to apply statistical, machine learning, information visualization, and text analysis techniques to gain new insight into their data. In the final course, students will work on real-world data analysis projects, building a portfolio which showcases their work while at the same time helping real clients gain a better understanding of their data.

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verify this certificate at:
https://coursera.org/verify/specialization/RU8RTSP5KGXQ

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 31, 2025.

5 cursos

Introduction to Data Science in Python

Applied Plotting, Charting & Data Representation in Python

Applied Machine Learning in Python

Applied Text Mining in Python

Applied Social Network Analysis in Python

Feb 12, 2018

JOSÉ EVANDEILTON LOPES

concluiu com sucesso o Programa de cursos integrados on-line (sem créditos)

Applied Data Science with Python

264

The 5 courses in this University of Michigan specialization introduce learners to data science through the python programming language. This skills-based specialization is intended for learners who have a basic python or programming background, and want to apply statistical, machine learning, information visualization, and text analysis techniques to gain new insight into their data. In the final course, students will work on real-world data analysis projects, building a portfolio which showcases their work while at the same time helping real clients gain a better understanding of their data.

Christopher Brooks
Associate Professor of Information
School of Information

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

Verifique este certificado em:
https://coursera.org/verify/specialization/RU8RTSP5KGXQ

UCDAVIS

COURSE CERTIFICATE

Nov 16, 2017

JOSÉ EVANDEILTON LOPES

successfully completed the Integrated online course Program

Essential Design Principles for Tableau

a non-credit online course authorized by the University of California, Davis and offered through Coursera



Govind Acharya
Principal Analyst
Budget and Institutional Analysis

Hunter Whitney



Verify at:
https://coursera.org/verify/ZSVSNJPGFXBJ
Coursera has verified this person's identity and their participation in the course.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 31, 2025.

UC DAVIS

COURSE CERTIFICATE

Nov 16, 2017

JOSÉ EVANDEILTON LOPES

concluiu com sucesso o Programa de cursos integrados

Essential Design Principles for Tableau

um curso on-line sem créditos autorizado pela University of California, Davis e ministrado através do Coursera

267



Govind Acharya
Principal Analyst
Budget and Institutional Analysis

Hunter Whitney



Verify at:
https://coursera.org/verify/ZSVSNJPGFXBJ

A Coursera confirmou a identidade desta pessoa e sua participação no curso.

UCDAVIS

COURSE CERTIFICATE

Dec 10, 2017

JOSÉ EVANDEILTON LOPES

successfully completed the Integrated online course Program

Visual Analytics with Tableau

a non-credit online course authorized by the University of California, Davis and offered through Coursera



Sukhvir S Brar

Suk S. Brar, M.B.A.
Lead Business Consultant, Blue Shield of California
University of California, Davis Extension

Peter Chen
Data Science, AI, Analytics Professional and Educator
Continuing and Professional Education

Verify at:
https://coursera.org/verify/ZGQFE7CW3EQZ
Coursera has verified this person's identity and their participation in the course.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 31, 2025.

UCDAVIS

COURSE CERTIFICATE

Dec 10, 2017

JOSÉ EVANDEILTON LOPES

concluiu com sucesso o Programa de cursos integrados

Visual Analytics with Tableau

um curso on-line sem créditos autorizado pela University of California, Davis e ministrado através do Coursera

270



Suk S. Brar, M.B.A.
Lead Business Consultant, Blue Shield of California
University of California, Davis Extension

Peter Chen
Data Science, AI, Analytics Professional and Educator
Continuing and Professional Education



Verify at:
https://coursera.org/verify/ZGQFE7CW3EQZ

A Coursera confirmou a identidade desta pessoa e sua participação no curso.

UCDAVIS

COURSE CERTIFICATE

Jan 11, 2018

JOSÉ EVANDEILTON LOPES

successfully completed the Integrated online course Program

Creating Dashboards and Storytelling with Tableau

a non-credit online course authorized by the University of California, Davis and offered through Coursera

271



Govind Acharya
Principal Analyst
Budget and Institutional Analysis

Hunter Whitney



Verify at:
https://coursera.org/verify/9WDKPECKJDFE

Coursera has verified this person's identity and their participation in the course.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 31, 2025.

UCDAVIS

COURSE CERTIFICATE

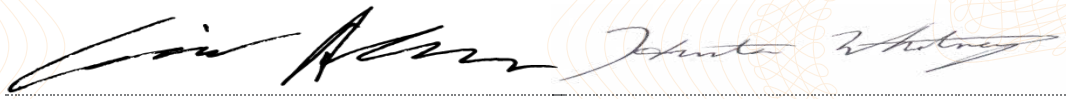
Jan 11, 2018

JOSÉ EVANDEILTON LOPES

concluiu com sucesso o Programa de cursos integrados

Creating Dashboards and Storytelling with Tableau

um curso on-line sem créditos autorizado pela University of California, Davis e 273 ministrado através do Coursera



Govind Acharya
Principal Analyst
Budget and Institutional Analysis

Hunter Whitney



Verify at:
https://coursera.org/verify/9WDKPECKJDFE

A Coursera confirmou a identidade desta pessoa e sua participação no curso.

UCDAVIS

COURSE CERTIFICATE

Oct 9, 2017

JOSÉ EVANDEILTON LOPES

successfully completed the Integrated online course Program

Fundamentals of Visualization with Tableau

a non-credit online course authorized by the University of California, Davis and offered through Coursera



Desiree' Abbott
Business Intelligence Developer III at Limeade
Instructor for Continuing and Professional Education
UC Davis

Alexandra Wilson
Instructor and Business Intelligence Analyst
Continuing and Professional Education

Verify at:
https://coursera.org/verify/J47WVKF85VFL

Coursera has verified this person's identity and their participation in the course.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: July 31, 2025.

UC DAVIS

COURSE CERTIFICATE

Oct 9, 2017

JOSÉ EVANDEILTON LOPES

concluiu com sucesso o Programa de cursos integrados

Fundamentals of Visualization with Tableau

um curso on-line sem créditos autorizado pela University of California, Davis e ministrado através do Coursera

276



Desiree' Abbott
Business Intelligence Developer III at Limeade
Instructor for Continuing and Professional Education
UC Davis

Alexandra Wilson
Instructor and Business Intelligence Analyst
Continuing and Professional Education

Verify at:
https://coursera.org/verify/J47WVKF85VFL

A Coursera confirmou a identidade desta pessoa e sua participação no curso.

ELABORATA
INFORMÁTICA

Certifies that

JOSE EVANDEILTON LOPES

attended the course

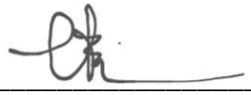
ADVANCED MAINTENANCE TOOLS

in the Vocational Training modality,
from 09/18/2007 to 09/24/2007,
with a total duration of 15 class hours.

Curitiba, September 21, 2007.

Director **Holder**

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 1, 2025.

ELABORATA
INFORMÁTICA

Certifica que

JOSE EVANDEILTON LOPES

frequentou no período de 18/09/2007 a 24/09/2007 o curso de

FERRAMENTAS PARA MANUTENÇÃO AVANÇADA

na modalidade de Treinamento Profissionalizante com duração de 15 horas/aula.

Curitiba,21 de setembro de 2007.

Diretor **Portador**

ELABORATA
INFORMÁTICA

Certifies that

JOSE EVANDEILTON LOPES

attended the course

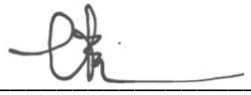
ASSEMBLY AND MAINTENANCE OF MICROCOMPUTERS

in the Vocational Training modality,
from 08/27/2007 to 09/17/2007,
with a total duration of 45 class hours.

Curitiba, September 17, 2007.

Director **Holder**

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 1, 2025.

ELABORATA
INFORMÁTICA

Certifica que

JOSE EVANDEILTON LOPES

frequentou no período de 27/08/2007 a 17/09/2007 o curso de

MONTAGEM E MANUTENÇÃO DE MICROCOMPUTADORES

na modalidade de Treinamento Profissionalizante com duração de 45 horas/aula.

Curitiba,17 de setembro de 2007.

Diretor **Portador**

ELABORATA
INFORMÁTICA

Certifies that

JOSE EVANDEILTON LOPES

attended the course

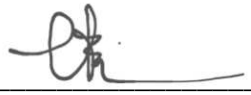
LOCAL NETWORKS

in the Vocational Training modality,
from 09/25/2007 to 10/04/2007,
with a total duration of 24 class hours.

Curitiba, October 2, 2007.

Director **Holder**

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 1, 2025.

ELABORATA
INFORMÁTICA

Certifica que

JOSE EVANDEILTON LOPES

frequentou no período de 25/09/2007 a 04/10/2007 o curso de

REDES LOCAIS

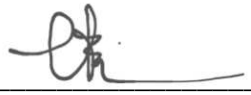
na modalidade de Treinamento Profissionalizante com duração de 24 horas/aula.

Curitiba,02 de outubro de 2007.

Diretor **Portador**

00.443.504/0001-86
ELABORATA TREINAMENTO
E PRODUTOS DE
INFORMÁTICA LTDA
RUA MONSENHOR CELSO, 256
MEZZANINE - CENTRO
ZIP CODE 80010-150-CURITIBA-PR

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 1, 2025.

00.443.504/0001-86
ELABORATA TREINAMENTO
E PRODUTOS DE
INFORMÁTICA LTDA
RUA MONSENHOR CELSO, 256
S/LOJA – CENTRO
CEP 80010-150 – CURITIBA – PR



Microlins

Professional Training Center

Certificate

Issued in accordance with Law 9394/96, regulated by
Decree-Law 2208/97 (Article 4th) of the National Education Guidelines and Framework Law.

We hereby certify that JOSÉ EVANDEILTON LOPES 289 has completed the course INTERNET comprising the module INTERNET from 11/26/02 to 12/17/02 with a total workload of 4 hours.

RECIFE - PE December 17, 2002

Unit Director

Certificate Holder

José Carlos Semenzato
President

№ 192113

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 1, 2025.

Microlins
Centro de Formação Profissional

Certificado

Emitido em conformidade com a Lei 9394/96, regulamentado, pelo
Decreto-Lei 2208/97 (artigo 4º) da Lei de Diretrizes e Bases da Educação Nacional.

VÁLIDO EM TODO O TERRITÓRIO NACIONAL

291

Certificamos que JOSÉ EVANDEILTON LOPES Concluiu

o curso de INTERNET constituído pelos

módulos INTERNET

no período de 26/11/02 a 17/12/02 com carga horária de 4 horas.

RECIFE - PE 17 de dezembro de 2002.

Diretor da Unidade

José Carlos Semenzato
Presidente

Titular do Certificado

Nº 192113

SALESIANOS
DOM BOSCO SCHOOL
OF ARTS AND VOCATIONAL TRADES

CERTIFICATE

We hereby certify that **José Evandeilton Lopes**
Has completed the **Refrigeration** Course
292
Held at the Dom Bosco School of Arts and Vocational Trades
From August 5 to December 13, 2002
With a total workload of 320 class hours.

Recife, December 13, 2002

Instructor

Valter Roberto
Refrigeration Instructor
Dom Bosco School

Student

Director

"The Salesian way of educating for work"

Dom Bosco School of Arts and Vocational Trades
Avenida General San Martin, 1449 * Bongi * Recife/Pernambuco * ZIP Code 50761-000 * CNPJ 10.913.861/0001-14 * State Registration 18.1.001.0005984-1 * Municipal Registration 072.886.-1
Phone: +55 (81) 3228-1444 * Fax: (81) 3228-0161 * Email: edb@salesianosrec.org.br * Website: www.escoladombosco.org.br

COURSE CONTENT

The course is divided into two modules: a *basic module* and a *specific module.*

Basic Module - 104 Class Hours

- Mathematics
- Portuguese
- Religious Education
- Citizenship
- Basic Computing
- Courses: *Youth Integration into the Job Market; Workplace Accident Prevention; Labor Legislation.*

Specific Module - 216 Class Hours

- History of Refrigeration;
- Refrigeration Circuit;
- Filter-Dryers;
- Expansion Elements;
- Operation of Start Relays
- Starting Voltage; Start and Run Capacitors;
- Vacuum;
- Refrigerant Charging;
- Compressor Selection;
- Gas Application Ranges;
- How to Handle the Compressor;
- Recommendations for the Application of Compressors Operating with Refrigerants R-12, R-22, and R-134 A;
- Causes of Failures in R-134 A Compressors and Alternative Fluids;
- Compressor Conversion to R-134 A Refrigerant;
- Diagnosis of Problems in a Refrigeration System;
- Procedure for Replacing a Hermetic Compressor;
- Air Conditioning Maintenance;
- Repairs and Cleaning of Fans and Air Conditioners;
- How to Test: Selector Switch; Refrigerator Hermetic Compressor; Air Conditioner Compressor; Relays; Thermal Protector; Start and Run Capacitors;
- Panel Replacement;
- Gasket Replacement;
- How to: Perform a Gas Recharge; Vacuum a Refrigeration System (small, medium, and large-scale systems)
- How to Perform a Retrofit
- Thermal Load Measurement
- Exhibition: Arts and Vocational Trades Fair

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 4, 2025.

SALESIANOS
ESCOLA DOM BOSCO
DE ARTES E OFÍCIOS

CERTIFICADO

Certificamos que **José Evandeilton Lopes**
Concluiu o Curso de **Refrigeração**
Realizado na Escola Dom Bosco de Artes e Ofícios
No período de 05 de agosto a 13 de Dezembro 2002
Com uma carga horária de 320 horas/aulas.

Recife, 13 de dezembro de 2002

Instrutor
Valter Roberto
Inst. de Refrigeração
Escola Dom Bosco - [illegible]

José Evandeilton Lopes
Aluno(a)

Diretor

"[illegible]eito Salesiano de educar para o trabalho"

Escola Dom Bosco de Artes e Ofícios
Av. General San Martin, 1449 • Bongi • Recife/PE • CEP 50761-000 • CNPJ 10.913.861/0001-14 • Insc. Estadual 18.1.001.0005984-1 • Insc. Municipal 072.886-1
Fone: (81) 3228.1444 • Fax: (81) 3228.0161 • E-mail: edb@salesianosrec.org.br • Site: www.escoladombosco.org.br

CONTEÚDO PROGRAMÁTICO

O conteúdo do curso está divido em dois módulos: *módulo básico e módulo específico.*

Módulo Básico – 104 Horas/Aulas

- Matemática
- Português
- Formação religiosa
- Cidadania
- Informática Básica
- Cursos: *Inserção do Jovem no Mercado de Trabalho; Prevenção de Acidentes no Trabalho; Legislação Trabalhista.*

Módulo Específico – 216 Horas/Aulas

- Histórico da Refrigeração;
- Circuito de refrigeração;
- Filtro secadores;
- Elementos de expansão;
- Funcionamento de reles de partida;
- Tensão de partida; capacitador de partida e de marcha
- Vácuo;
- Carga de fluído refrigerante;
- Seleção de compressores;
- Faixas de aplicação de gás;
- Como manusear o compressor;
- Recomendações na aplicação dos compressores que operam com refrigerante R. 12 – R. 22 – R. 134 A
- Causas de falhas de compressores R. 134 A e fluídos alternativos;
- Mudança do compressor para refrigerante R. 134 A;
- Diagnóstico dos problemas em um sistema de refrigeração;
- Procedimento para trocar o compressor hermético;
- Manutenção em ar condicionado;
- Reparos e limpeza em ventilador e em ar condicionados;
- Como Testar: chave seletora; compressor hermético de geladeira; compressor de condicionador de ar; relés; protetor térmico; capacitador de partida e de marcha;
- Troca de um painel;
- Troca de uma gaxeta;
- Como Fazer: uma carga de gás; vácuo em um sistema de refrigeração de pequeno, médio e grande porte
- Como fazer e Retrofit;
- Medida de carga térmica;
- Exposição: feira de artes e ofícios.

SMNE 2023

PPGMNE
Graduate Program in
Numerical Methods in Engineering

CERTIFICATE

We hereby certify that the work entitled "Beta Regression Models for Scale Data", authored by José Evandeilton Lopes and Wagner Hugo Bonat, was presented by **José Evandeilton Lopes** at the 2023 Symposium on Numerical Methods in Engineering at the Federal University of Paraná, held on December 9, 2023.

Cassius Tadeu Scarpin
Cassius Tadeu Scarpin, DSc.
President of the Organizing Committee
SMNE 2022
(*SMNE: Symposium on Numerical Methods in Engineering*)

UFPR
FEDERAL UNIVERSITY OF PARANÁ

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 1, 2025.

SMNE 2023

PPGMNE
Programa de Pós-Graduação em Métodos Numéricos em Engenharia

CERTIFICADO

Certificamos que o trabalho intitulado “Modelos de regressão beta para dados de escala” de autoria de José Evandeilton Lopes e Wagner Hugo Bonat foi apresentado por **José Evandeilton Lopes** no Simpósio de Métodos Numéricos em Engenharia 2023 da Universidade Federal do Paraná, realizado no dia 9 de dezembro de 2023.

Cassius Tadeu Scarpin

Cassius Tadeu Scarpin, DSc.
Presidente da Comissão Organizadora
SMNE 2022

UFPR
UNIVERSIDADE FEDERAL DO PARANÁ

UFPR
FEDERAL UNIVERSITY OF PARANÁ

PPGMNE
Graduate Program in Numerical Methods in Engineering

MINISTRY OF EDUCATION
FEDERAL UNIVERSITY OF PARANÁ
GRADUATE PROGRAM IN NUMERICAL METHODS IN ENGINEERING

Certificate

We hereby certify that the work entitled “PREDICTION OF CARDIAC RISKS VIA BAYESIAN NETWORKS”, authored by José Evandeilton Lopes and Wagner Hugo Bonat, was presented by **José Evandeilton Lopes** at the 2024 Symposium on Numerical Methods in Engineering (**SMNE 2024**) at the Federal University of Paraná.

Curitiba, November 29, 2024.

Prof. Dr. Eduardo Alves Portela Santos
Coordinator of the Graduate Program in Numerical Methods in Engineering

gov.br
Digitally signed document
EDUARDO ALVES PORTELA SANTOS
Date: 01/29/2025, 2:27:06 PM-0300
Verify at: http://validar.iti.gov.br

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 1, 2025.

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DO PARANÁ
PROGRAMA DE PÓS-GRADUAÇÃO EM MÉTODOS NUMÉRICOS EM ENGENHARIA

Certificado

Certificamos que o trabalho intitulado "PREDIÇÃO DE RISCOS CARDÍACOS VIA REDES BAYESIANAS " de autoria de José Evandeilton Lopes, Wagner Hugo Bonat foi apresentado por **José Evandeilton Lopes** no Simpósio de Métodos Numéricos em Engenharia 2024(**SMNE 2024**) da Universidade Federal do Paraná.

Curitiba, 29 de novembro de 2024.

Prof. Dr. Eduardo Alves Portela Santos
Coordenador do Programa de Pós-Graduação em Métodos Numéricos em Engenharia

gov.br
Documento assinado digitalmente
EDUARDO ALVES PORTELA SANTOS
Data: 29/01/2025 14:27:06-0300
Verifique em https://validar.iti.gov.br

Exhibit C.II - Second Prong: Lincesure and Professional Credentials

HOLDER

A F P R

DATE 03/17/2014

ISSUING DATE

07/04/2025

first



RIGHT THUMB



SIGNATURE OF THE HOLDER

FEDERAL COUNCIL OF STATISTICS

PROFESSIONAL STATISTICIAN IDENTITY CARD

REGIONAL COUNCIL OF STATISTICS – CONRE 4th REGION

(In accordance with the Regulation of Law No. 4,739 of 07/15/1965)

"It has public faith throughout the entire National Territory" (Art. 48 of Decree No. 62,497 of 04/01/1968)

ME
sé Evandeilton Lopes

IONALITY
azilian

PLACE OF BIRTH
Buique

DATE OF BIRTH
03/22/1983

ATION

HER Luiz Lopes da Silva

THER Maria das Dores da Conceição

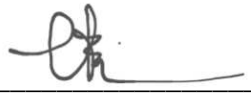
5.131.684-39

IDENTITY No.
11,452

CE AND DATE
rto Alegre, July 4, 2025

SIGNATURE OF THE PRESIDENT OF CONRE

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: December 17, 2025.

DIPLOMADO

U F P R

DATA 17/03/2014

DATA DA EXPEDIÇÃO 04/07/2025

Primeira VIA

POLEGAR DIREITO





José Wanderley Lopes

ASSINATURA DO PORTADOR

306

CONSELHO FEDERAL DE ESTATÍSTICA

CARTEIRA DE IDENTIDADE DE ESTATÍSTICO

CONSELHO REGIONAL DE ESTATÍSTICA - CONRE 4 REGIÃO

(De acordo com o Regulamento da Lei 4.739 de 15/7/65)

"Tem fé pública em todo o Território Nacional" (art. 48 do Dec. N.º 62.497 de 1/4/68)

NOME: José Evandeilton Lopes

NACIONALIDADE: Brasileiro

NATURALIDADE: Buíque

NASCIMENTO: 22/03/1983

FILIAÇÃO

PAI: Luiz Lopes da Silva

MÃE: Maria das Dores da Conceiçao

C.P.F.: 045.131.684-39

IDENTIDADE N.º: 11.452

LOCAL E DATA: Porto Alegre 04 de julho de 85

ASSINATURA DO PRESIDENTE DO CONRE

307

BRAZILIAN ASSOCIATION OF STATISTICS

Brazilian Association of Statistics

Home

José Evandeilton Lopes



Graduate Student

Registered on 12/17/2025

evandeilton@gmail.com

STATUS

Active

Edit profile

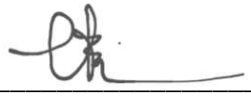
Latest publications

Brazilian Association of Statistics

166.8 days ago

Dear members.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: February 3, 2026.

ASSOCIAÇÃO BRASILEIRA DE ESTATÍSTICA

Associação Brasileira de Estatística

Home



José Evandeilton Lopes

Estudante Pós Graduação

Cadastrado em 17/12/2025

evandeilton@gmail.com

STATUS

Ativo

Editar perfil

Últimas publicações

Associação Brasileira de Estatística

166,8 dias atrás

Caros associados.

ABE BRAZILIAN ASSOCIATION OF STATISTICS

DECLARATION

I hereby declare for all due purposes that Mr. **José Evandeilton Lopes**, holder of CPF number **045.131.684-39**, is an ABE member in the **Graduate Student category** and is up to date with his 2025 annual membership fee.

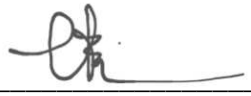
São Paulo, February 02, 2026.

Luana Aguiar Cavalcanti Takahashi
ABE Secretary

Brazilian Association of Statistics
CNPJ: 56572456/0001-80

Rua do Matão, 1010 - São Paulo - State of São Paulo - ZIP Code: 05508-080 - Phone: 3091 6261

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: February 3, 2026.

ABE ASSOCIAÇÃO BRASILEIRA DE ESTATÍSTICA

DECLARAÇÃO

Declaro para devidos fins que o **Sr. José Evandeilton Lopes** , portador do CPF de número **045.131.684-39** é sócio ABE na categoria **Estudante de pós graduação,** estando em dia com a anuidade 2025.

São Paulo, 02 de fevereiro de 2026.

Luana Aguiar Cavalcanti Takahashi
Secretária da ABE

Associação Brasileira de Estatística
CNPJ: 56572456/0001-80

Rua do Matão, 1010 – São Paulo-SP - CEP: 05508-080 – Tel: 3091 6261

The study of the New ABE Bylaws had been under review since October 2008. They were finalized in July 2009 and made available to the members on the ABE website for subsequent voting. The General Assembly remained open for two months for this purpose. Voting was closed on October 24, 2009, and the New Bylaws were approved on October 27, with the participation of 125 members, with only one vote against. All legal procedures were carried out by attorney Alexandre Motonaga. The bylaws were revised to bring them into compliance with the new Brazilian Civil Code.

BYLAWS OF THE BRAZILIAN ASSOCIATION OF STATISTICS - ABE

CHAPTER I

OF THE NAME, PURPOSES, AND REGISTERED OFFICE OF THE ASSOCIATION

Art. 1 - THE BRAZILIAN ASSOCIATION OF STATISTICS, abbreviated as ABE, governed by these Bylaws and, subsidiarily, by applicable legislation, is a private-law association, non-profit in nature, with nationwide scope and an indefinite duration, with its registered office and legal venue at Rua do Matão, 1010 – room 250 A, Butantã Neighborhood, in the municipality of São Paulo, State of São Paulo, ZIP Code 05508-090, and may open and maintain offices in any part of the national territory and abroad.

Sole Paragraph - THE BRAZILIAN ASSOCIATION OF STATISTICS, hereinafter, shall be referred to by the acronym ABE.

Art. 2 - The ABE has the following purposes:

I - to bring together researchers, professors, professionals, and students who have an interest in Statistics;

II - to encourage research, the promotion of studies, debates, and high-level conferences in Statistics and, consequently, to promote its dissemination through its own publications or those of third parties;

III - to hold periodic meetings in various locations throughout the country;

IV - to encourage and promote exchanges among Statistics professionals in Brazil and abroad;

V - to promote exchanges with related societies;

VI - to safeguard the freedom of teaching and research, as well as the scientific and professional interests of the field of Statistics in Brazil;

VII - to promote the broad use of Statistics in scientific and technological research;

VIII - to encourage the appropriate use of statistical methods in Brazil;

IX - to provide advisory services and collaboration in the field of Statistics, as

may be necessary for the country's development.

X - to make efforts to hold, at least every two years, the National Symposium on Probability and Statistics (SINAPE);

XI - to promote professional ethics and intellectual integrity.

Art. 3 - In order to fulfill its purposes, the ABE may enter into technical and financial cooperation agreements with public and private entities, both national and foreign.

Art. 4 - All initiatives or expressions of a political-party or religious nature, in the name of the Association or within its sphere, are expressly prohibited, except for those that concern the direct interests of the Association and provided they are permitted by law.

CHAPTER II

OF THE MEMBERS

Art. 5 - Individuals who have an interest in Statistics, especially professors, researchers, students, and other professionals who use it in the development of their activities, as well as legal entities under public or private law that operate in the field of education and research, or that carry out business activities and use Statistics in their operations, may become Members of the ABE, provided they comply with the provisions of this Bylaws and are previously approved by the Board in accordance with the provisions of Art. 8.

Art. 6 - Members shall be classified into the following categories:

a) Regular Members, those who signed the Minutes of the ABE's establishment and those admitted by the Board;

b) Honorary Members, those who have rendered, in the Judgment of the Board of Directors, relevant services to the ABE or to Statistics;

c) Student Members, students regularly enrolled in undergraduate or graduate programs at institutions of higher education, who, upon completion of their course, shall automatically become Regular Members;

d) Institutional Members, legal entities, public or private, with or without economic purposes, that are accepted by the Board.

Art. 7 - The rights and duties of Institutional Members shall be exercised by their legal representative, designated by their bylaws or founding documents, or by a representative permanently appointed, with a single vote in meetings. In any case, a corresponding alternate must also be designated.

§ 1 - Institutional Members are required to immediately notify the Association of any changes in their legal representation before it.

§ 2 - When an Institutional Member withdraws from the Association for any reason, its legal representative must also be removed from any position they may hold within the Association.

Section I - OF ADMISSION AND READMISSION

Art. 8 - Candidates for Regular, Student, and Institutional Membership must be approved by all members of the Board present at the meeting.

§ 1 - The Board has absolute authority to decide on the admission of a candidate, and no compensation of any kind shall arise in the event of rejection of their admission.

§ 2 - The decision on the admission of a candidate shall be made by an open and individual vote of the Board members present at the meeting.

§ 3 - The candidate shall only be informed of their admission or non-acceptance, and no formal or informal explanation shall be provided.

§ 4 - In the event that the Board rejects a candidacy, the candidate may appeal to the Association's Board of Directors.

Art. 9 - A candidate for Honorary Membership must be nominated by at least 20 (twenty) Regular Members or by initiative of all members of the Board, with approval by the Board of Directors.

Sole paragraph - The candidacy for Honorary Membership shall be considered approved by the Board of Directors upon the consent of two-thirds (2/3) of its members.

Art. 10 - The readmission of members shall follow the same rules as admission and any additional rules established by the Board of Directors.

Section II - OF RESIGNATION

Art. 11 - A Member has the right to resign whenever they deem necessary, notifying the Board of their resignation, which shall take immediate effect, and the Member shall cease to be part of the ABE.

Sole paragraph - Failure to pay financial contributions shall be considered an automatic resignation.

Section III - OF EXPULSION

Art. 12 - The loss of Membership shall be determined by the Board of Directors, and shall only occur for just cause, as recognized in a disciplinary procedure that guarantees the right to full defense, when the occurrence of the following is proven:

1. Recurrence of a fault subject to suspension, after having been suspended twice;

2. Violation of the bylaws;

3. Defamation of the Association, or any of its Members;

4. Activities contrary to the decisions of the general assemblies;

5. Deviation from good morals;

6. Questionable conduct, through the practice of illegal or immoral acts;

§ 1 - Once just cause is established, the Member shall be duly notified of the facts attributed to them, so that they may present their defense within 20 (twenty) days from the receipt of the notification;

§ 2 - After the period described in the previous paragraph, regardless of whether a defense is presented, the case shall be decided at an extraordinary meeting of the Board of Directors by a simple majority of the votes of the Directors present;

§ 3 - If the penalty of expulsion is applied, the expelled Member may appeal to the general assembly, which must be notified within 30 (thirty) days from the decision of their expulsion, expressing the intention to have the Board of Directors' decision reviewed, as a final instance, by the General Assembly;

§ 4 - Once expelled, for any reason, the Member shall have no right to claim compensation or indemnity of any kind, under any title.

Section IV - OF DUTIES AND RIGHTS

Art. 13 - The duties of Members are:

I - To comply with the provisions of these Bylaws, as well as the resolutions of the Board of Directors and the General Assemblies, including voting in elections for the Board and the Board of Directors, or any other decision for which they are called;

II - To cooperate with the Board of Directors, safeguarding the assets of the ABE and contributing to the achievement of the Association's objectives and purposes;

III - To pay promptly the contributions owed, which shall be set by the Board with the approval of the Board of Directors, that may also establish different amounts for each type of Member.

Art. 14 - The rights of Members are:

I - To participate in Ordinary and Extraordinary General Assemblies;

II - To be elected to office if a Regular Member in good standing with the Association;

III - To vote in Ordinary and Extraordinary General Assemblies if a Regular or Student Member in good standing with the Association;

IV - To be appointed to committees, representations, or advisory functions of the ABE;

Thus, the BYLAWS shall be composed

Inclusion of 3 new articles in the Bylaws (Awards, Meetings, and Publications of the ABE)

In Chapter XIV

Art. 52 - Awards granted by the ABE

The ABE shall grant, every two years, on the occasion of the SINAPE, the following awards:

a) ABE Award
b) Award for Best Doctoral Dissertation
c) Award for Best Master's Thesis
d) Award for Best Undergraduate Research Paper

I. The ABE Award shall be granted to the Brazilian Statistician who has dedicated their entire career in Brazil to teaching, research, and supervision in the field of Statistics, and who has made a significant contribution to the development of Statistics in the country.
II. Candidates for the ABE Award may be nominated by any ABE member, by a group of members, or by any professional or scientific entity active in the field of Statistics or related sciences. Nominations must be properly justified.
III. The ABE Board of Directors shall appoint a Committee composed of five members to select the awardee from among the nominees.
IV. For the awards mentioned in items (b)–(c), graduates in the respective categories, whose degrees were obtained from Brazilian universities, may apply. The ABE Board of Directors shall appoint committees, each composed of five members, to select the awardees from among the applicants.
V. May apply for the award for Best Undergraduate Research Paper those undergraduate students who are enrolled in scientific initiation programs at Brazilian universities or who have carried out academic and/or scientific work under supervision (undergraduate thesis, for example). The ABE Board of Directors shall appoint a Committee of five members to select the awardee from among the applicants.
VI. The ABE Board of Directors shall establish, through regulations, the deadlines for registration or nomination for the different awards, as well as the deadlines for the evaluation committees to submit their conclusions. It shall also establish the forms of the different awards (certificates, cash prizes, medals, etc.) and shall arrange, together with the SINAPE organizing committee, the award ceremonies.

Art. 53 - ABE Publications

I. The regular publications of the ABE are the following:

1. The Brazilian Journal of Probability and Statistics (BJPS), which is the official journal of the ABE;
2. The Fisher Project, aimed at publishing scientific books on Statistics;
3. The ABE Bulletin, aimed at disseminating news of interest to ABE members.

II. The BJPS shall have an Editorial Board (EB), which must be appointed by a Search Committee. The Search Committee shall have 5 members, appointed by the ABE Board of Directors, whose terms are renewed every two years along with the Board. The Search Committee proposes 2 names for each editorial position, and the Board of Directors decides on the final composition of the EB. The term of the BJPS Editorial Board shall be two years, coinciding with the term of the Board of Directors.

III. The Fisher Project shall have its Editorial Board (EB) appointed by the Board of Directors, based on the recommendation of the Search Committee.

IV. Publications with irregular periodicity may be created by the Board of Directors. Publications with regular periodicity must be approved by ABE Assemblies.

V. The ABE Bulletin and the publications mentioned in item IV shall have their Editorial Boards appointed by the ABE Board of Directors.

Art. 54 - Meetings

The official meetings organized by the ABE are the following:

a) National Symposium on Probability and Statistics (SINAPE)
b) School of Regression Models (EMR)
c) School of Time Series and Econometrics (ESTE)
d) Regional ABE Meetings

I. The SINAPE shall be held every two years, in even-numbered years, at a location determined by the Board and the ABE Board of Directors. The responsibility for organizing the SINAPE lies with the ABE Board, assisted by two committees: the Scientific Committee, which will make suggestions regarding the scientific program and evaluate the papers submitted to the event, and the Organizing Committee, which will be responsible for all other aspects of the organization. The scientific program shall be defined by the Board, the ABE Board of Directors, and the Scientific Committee, and shall cover various areas of Statistics. The members of both committees, as well as their coordinators, shall be chosen by the Board and the ABE Board of Directors.

II. The EMR and the ESTE are meetings focused on specific areas and shall be held every two years, in odd-numbered years. The Organizing and Scientific Committees, as well as the location of the meetings, shall be approved by the Board and the ABE Board of Directors. Other specific meetings may be included in this category at the request of any ABE member, provided they have already been held at least three times.

III. The ABE Regional Meetings are gatherings aimed at facilitating the discussion of topics of local interest related to Statistics. The Organizing Committees and the meeting locations shall be approved by the Board and the ABE Board of Directors.

IV. Other meetings may be supported by the ABE, with the approval of the Board and the ABE Board of Directors.

In Art. 6.

"... current text

b) Honorary Members, those who have rendered, in the Judgment of the Board of Directors, relevant services to the ABE or to Statistics;

proposed amendment

b) Honorary Member - The title of Honorary Member shall be granted to the statistician who has made a significant contribution to the development of Statistics in Brazil.

In Art. 9.

current text

A candidate for Honorary Member must be nominated by at least 20 (twenty) Regular Members or by the initiative of all members of the Board, with approval by the Board of Directors.

proposed amendment

A candidate for Honorary Member must be at least 60 years old and be nominated by at least 5 Regular Members or by the initiative of all members of the Board, with approval by the Board of Directors.

CHAPTER IV - DELIBERATIVE AND OVERSIGHT BODIES
In Art. 23 - Inclusion of §3

proposed amendment

§3 - Meetings of the Board of Directors may be held in person or via the Internet.

CHAPTER V - MANAGEMENT BODIES In Art. 26. Inclusion of §3

current text

The Board is composed of a President, a General Secretary, and a Treasurer, elected from among the Regular Members at a General Assembly, for a term of 2 (two) years, with re-election prohibited.

proposed amendment

The Board is composed of a President, a General Secretary, and a Treasurer, elected from among the Regular Members at a General Assembly, for a term of 2 (two) years. The General Secretary and the Treasurer may run for office in the following term, provided it is for a different position. The President is prohibited from running for any position in the following term.

CHAPTER IV - ELECTIONS In Art. 35. Inclusion of §1 and §2

current text

Elections for the positions on the Board and the Board of Directors shall be conducted by the General Assembly, and only the following Members may be candidates: I - Belong to the category of Regular Members, be in good standing with their obligations to the Association, and enjoy full rights; II - Individual candidates for the Board of Directors and complete slates for the Board positions, provided they are registered at least two weeks before the start of the elections. Sole Paragraph - The Board shall publish the slates and the list of registered individual candidates at least one week before the start of the elections.

proposed amendment

Elections for the positions on the Board and the Board of Directors shall be conducted by the General Assembly, and only the following may be candidates: I - Regular Members who are in good standing with their obligations to the Association. II - Individual candidates for the vacancies on the Board of Directors and complete slates for the Board positions, provided they are registered at least two weeks before the start date of the elections. §1 - The Board shall publish the slates and the list of registered individual candidates at least one week before the start of the elections. §2 - The election may be conducted electronically or by ballot.

CHAPTER X - THE FISCAL YEAR In Art. 44.

current text

Art. 44 - The fiscal year begins on October 1 and ends on September 30.

proposed amendment

- The fiscal year begins on September 1 and ends on August 30, coinciding with the end of the Board's term.

CHAPTER X - TRANSITIONAL PROVISIONS In Art. 51.

current text

The term of the current Board ends on July 31, 2010.

proposed amendment

The term of the current Board ends on August 30 of each election biennium.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: February 3, 2026.

O estudo do Novo Estatuto da ABE esteve em análise desde outubro de 2008. Foi finalizado em julho de 2009 e colocado à disposição dos sócios, no site da ABE, para posterior votação. A Assembléia Geral ficou aberta por dois meses para este fim. A votação foi encerrada no dia 24 de outubro de 2009 e o Novo Estatuto foi aprovado, no dia 27 de outubro, com a participação de 125 associados, sendo apenas um voto contra. Todos os trâmites legais foram realizados pelo advogado Alexandre Motonaga. O Estatuto foi reformulado para adequar-se às exigências do Novo Código Civil Brasileiro.

ESTATUTO DA ASSOCIAÇÃO BRASILEIRA DE ESTATÍSTICA - ABE

CAPITULO I

DA DENOMINAÇÃO, OS FINS E A SEDE DA ASSOCIAÇÃO

Art. 1º - A ASSOCIAÇÃO BRASILEIRA DE ESTATÍSTICA, com a sigla ABE, regida por este Estatuto e, subsidiariamente, pela legislação aplicável, é uma associação de direito privado, com fins não econômicos, de âmbito nacional e prazo de duração indeterminado, com sede e foro à Rua do Matão,1010 –sala 250 A, Bairro do Butantã, no município de São Paulo, Estado de São Paulo, CEP 05508-090, podendo abrir e manter escritórios em qualquer parte do território nacional e no exterior.

Parágrafo Único – A ASSOCIAÇÃO BRASILEIRA DE ESTATÍSTICA, daqui por diante, será designada pela sigla ABE.

Art. 2º - A ABE tem por finalidade:

I – congregar pesquisadores, professores, profissionais e estudantes que tenham interesse em Estatística;

II – estimular a pesquisa, promoção de estudos, debates e conferências de alto nível em Estatística e, consequentemente, promover sua divulgação por meio de publicações próprias ou de terceiros;

III – realizar reuniões periódicas em diversos pontos do país;

IV – incentivar e promover o intercâmbio entre profissionais de Estatística do Brasil e do exterior;

V – promover o intercâmbio com sociedades congêneres;

VI – zelar pela liberdade de ensino e de pesquisa, bem como pelos interesses científicos e profissionais da área de Estatística no Brasil;

VII – promover a ampla utilização da Estatística na pesquisa científica e tecnológica;

VIII – estimular a utilização apropriada dos métodos estatísticos no Brasil;

IX – oferecer assessoria e colaboração, no setor de Estatística, que se fizerem necessárias

para o desenvolvimento do país;

X – envidar esforços para realizar pelo menos a cada dois anos o Simpósio Nacional de Probabilidade e Estatística (SINAPE);

XI – estimular a ética profissional e a integridade intelectual.

Art. 3º - Para cumprir suas finalidades, poderá a ABE celebrar convênios de cooperação técnica e financeira com entidades públicas e privadas, tanto nacionais como estrangeiras.

Art. 4º - São expressamente vedadas todas e quaisquer iniciativas ou manifestações de caráter político-partidário e religioso, em nome da Associação ou em seu meio, excetuando-se as que digam respeito ao interesse direto da Associação e desde que permitidas por lei.

CAPITULO II

DOS ASSOCIADOS

Art. 5º - As pessoas físicas que tenham interesse em Estatística, especialmente os professores, pesquisadores, estudantes e demais profissionais que a utilizem no desenvolvimento de suas atividades, bem como as pessoas jurídicas de direito público e privado que atuem no âmbito do ensino e da pesquisa, ou que desenvolvam atividade empresarial e utilizem a Estatística em suas atividades, desde que atendam os dispositivos desse estatuto, podem tornar-se Associados da ABE, se previamente aprovados pela Diretoria nos termos do disposto no art. 8º.

Art. 6º - Enquadrar-se-ão os Associados nas seguintes categorias:

a) Titulares, os que assinaram a Ata de instalação da ABE e os que forem admitidos pela Diretoria;

b) Honorários, os que prestaram, segundo Julgamento do Conselho Diretor, serviços relevantes à ABE ou à Estatística;

c) Estudantes, os alunos regularmente matriculados na graduação ou pós-graduação de instituição de ensino superior, sendo que, ao final do curso, automaticamente, o Associado Estudante passará para a categoria de Associado Titular;

d) Institucionais, as pessoas jurídicas públicas e as privadas, com e sem fins econômicos, que forem aceitas pela Diretoria.

Art. 7º - Os direitos e deveres dos Associados Institucionais serão exercidos pelo seu representante legal, designado pelos seus estatutos ou atos constitutivos, ou ainda por um representante que seja indicado de forma permanente, cabendo um único voto nas reuniões, devendo ainda, em qualquer das hipóteses, ser designado o respectivo suplente.

§ 1° - Os Associados Institucionais são obrigados a comunicar imediatamente à Associação, qualquer alteração na sua representação legal perante a mesma.

§ 2° - Quando o Associado Institucional se desligar, por qualquer motivo, da Associação, o seu representante legal também deverá ser desligado de qualquer cargo que porventura exerça na mesma.

Seção I – DA ADMISSÃO E READMISSÃO

Art. 8° - O candidato a Associado Titular, Estudante e Institucional deverá ser aprovado por todos os membros da Diretoria presentes na reunião.

§ 1° - A Diretoria é absolutamente soberana para decidir sobre admissão de candidato, não gerando qualquer tipo de indenização na hipótese de rejeição ao seu ingresso.

§ 2° - A deliberação sobre a admissão de candidato se dará por voto aberto e individual dos membros da Diretoria presentes na reunião.

§ 3° - O candidato somente será informado da sua admissão, ou não aceitação, não cabendo qualquer explicação formal ou informal.

§ 4° - Na hipótese de rejeição da candidatura pela Diretoria, o candidato poderá recorrer ao Conselho Diretor da Associação.

Art. 9° - O candidato a Associado Honorário deverá ser apresentado por, no mínimo, 20 (vinte) Associados Titulares, ou por iniciativa de todos os membros da Diretoria, cabendo ao Conselho Diretor a sua aprovação.

Parágrafo Único - A candidatura para Associado Honorário será considerada aprovada pelo Conselho Diretor mediante anuência de dois terços (2/3) dos membros do Conselho.

Art. 10 - A readmissão de Associados obedecerá às mesmas normas da admissão e outras estabelecidas pelo Conselho Diretor.

Seção II – DA DEMISSÃO

Art. 11 - É direito do Associado demitir-se quando julgar necessário, comunicando a Diretoria seu pedido de demissão, que produzirá efeitos imediatos, deixando o Associado de ser membro da ABE.

Parágrafo Único – O não pagamento das contribuições financeiras constitui-se em pedido automático de demissão.

Seção III – DA EXCLUSÃO

Art. 12- A perda da qualidade de Associado será determinada pelo Conselho Diretor, sendo admissível somente havendo justa causa, assim reconhecida em procedimento disciplinar, em que fique assegurado o direito da ampla defesa, quando ficar comprovada a ocorrência de:

1. Reincidência de falta passível de suspensão, após haver sido suspenso por duas vezes;

2. Violação do estatuto social;

3. Difamação da Associação, de seus membros ou de seus Associados;

4. Atividades contrárias às decisões das assembléias gerais;

5. Desvio dos bons costumes;

6. Conduta duvidosa, mediante a prática de atos ilícitos ou imorais;

§ 1º – Definida a justa causa, o Associado será devidamente notificado dos fatos a ele imputados, para que apresente sua defesa prévia no prazo de 20 (vinte) dias a contar do recebimento da comunicação;

§ 2º – Após o decurso do prazo descrito no parágrafo anterior, independentemente da apresentação de defesa, a representação será decidida em reunião extraordinária do Conselho Diretor, por maioria simples de votos dos Conselheiros presentes;

§ 3º – Aplicada a pena de exclusão, caberá recurso, por parte do Associado excluído, à Assembléia Geral, o qual deverá, no prazo de 30 (trinta) dias contados da decisão de sua exclusão, manifestar a intenção de ver a decisão do Conselho Diretor ser objeto de deliberação, em última instância, por parte da Assembléia Geral;

§ 4º – Uma vez excluído, qualquer que seja o motivo, não terá o Associado o direito de pleitear indenização ou compensação de qualquer natureza, seja a que título for.

Seção IV – DOS DEVERES E DIREITOS

Art. 13 - São deveres dos Associados:

I - cumprir as disposições deste Estatuto, bem como as resoluções do Conselho Diretor e das Assembléias Gerais, inclusive votar nas eleições para a Diretoria e Conselho Diretor, ou qualquer outra deliberação para a qual for convocado;

II – colaborar com o Conselho Diretor, zelando pelo patrimônio da ABE e contribuindo para a realização dos objetivos e finalidades da Associação;

III - pagar pontualmente as contribuições que lhes couberem, as quais serão fixadas pela Diretoria, com a aprovação do Conselho Diretor, podendo ainda estabelecer valores diferenciados para cada tipo de Associado.

Art. 14 - São direitos dos Associados:

I – participar de Assembléias Gerais e Extraordinárias;

II – ser votado para cargos eletivos se Associado Titular quite com a Associação;

III – votar nas Assembléias Gerais Ordinárias e Extraordinárias se Associado Titular ou Estudante quite com a Associação;

IV – ser designado para comissões, representações ou funções de assessoria da ABE;

Sendo Assim o ESTATUTO passa a ser composto

Inclusão de 3 novos artigos no estatuto (Prêmios, Reuniões e Publicações da ABE)

Em capitulo XIV

Art 52 Prêmios concedidos pela ABE

A ABE concederá a cada dois anos, por ocasião da realização do SINAPE, os seguintes prêmios:

a) Prêmio ABE
b) Prêmio Melhor Tese de Doutorado
c) Prêmio Melhor Dissertação de Mestrado
d) Prêmio Melhor Trabalho de Iniciação Científica.

I. O Prêmio ABE será concedido ao Estatístico Brasileiro que tenha se dedicado, durante toda a sua carreira, no Brasil, ao ensino, pesquisa e orientação no campo da Estatística e que tenha contribuído de maneira significativa para o desenvolvimento da Estatística no país.
II. Candidatos ao Prêmio ABE poderão ser indicados por qualquer associado da ABE, ou por um grupo de associados, ou por qualquer entidade profissional ou científica com ação no âmbito da Estatística ou ciências correlatas. As indicações deverão ser devidamente fundamentadas.
III. O Conselho Diretor da ABE indicará uma Comissão formada por cinco membros para escolher o premiado dentre os indicados.
IV. Para os prêmios mencionados nos itens (b)-(c), poderão candidatar-se graduados nas respectivas modalidades, cujos títulos tenham sido obtidos em universidades brasileiras. O Conselho Diretor da ABE indicará Comissões, formadas por cinco membros, para escolher os premiados dentre os inscritos.
V. Poderão inscrever-se ao Prêmio de Melhor Trabalho de Iniciação Científica aqueles alunos de graduação que estejam inscritos nos programas de iniciação científica das universidades brasileiras ou que tenham realizado trabalho acadêmico e/ou científico sob supervisão (trabalho de conclusão de curso, por exemplo). O Conselho Diretor da ABE indicará uma Comissão de cinco membros para escolher o premiado dentre os inscritos
VI. A Diretoria da ABE estipulará, por meio de regulamentos, os prazos para inscrição ou indicação aos diferentes prêmios, bem como os prazos para que as comissões avaliadoras entreguem suas conclusões. Estipulará, também, as formas das diferentes premiações (diplomas, prêmio em dinheiro, medalha etc), bem como providenciará, junto à Comissão Organizadora do SINAPE, as cerimônias de entrega dos prêmios.

Art 53 Publicações da ABE

I. São publicações regulares da ABE os seguintes veículos:

1. O Brazilian Journal of Probability and Statistics (BJPS), que é a revista oficial da ABE;
2. O Projeto Fisher, voltado para a publicação de livros científicos de Estatística;
3. O Boletim da Abe, voltado para divulgação de notícias de interesse dos associados da ABE.

II. O BJPS terá um Corpo Editorial (CE), que deve ser indicado por um Comitê de Busca. O Comitê de Busca terá 5 membros, indicados pelo Conselho Diretor da ABE, e cujos mandatos são renovados bianualmente, junto com a Diretoria. O Comitê de Busca indica 2 nomes para cada cargo editorial e o CD delibera sobre a composição final do CE. O mandato do CE do BJPS será de dois anos, coincidindo com o mandato da Diretoria.

III. O Projeto Fisher terá seu CE indicado pelo CD, a partir de recomendação do Comitê de Busca.

IV. Publicações de periodicidade irregular poderão ser criadas pelo CD. Publicações de periodicidade regular deverão ser aprovadas por Assembléias da ABE.

V. O Boletim da ABE e as publicações mencionadas no inciso IV terão seus CE's indicados pela Diretoria e CD da ABE.

Art 54 Reuniões

As reuniões oficiais organizadas pela ABE são as seguintes:

a) Simpósio Nacional de Probabilidade e Estatística (SINAPE)
b) Escola de Modelos de Regressão (EMR)
c) Escola de Séries Temporais e Econometria (ESTE)
d) Reuniões Regionais da ABE

I. O SINAPE será realizado a cada dois anos, nos anos pares, em local definido pela Diretoria e Conselho Diretor da ABE. A competência da realização do SINAPE é da Diretoria da ABE, assessorada por duas comissões: a Comissão Científica, que fará sugestões sobre a programação científica e avaliará os trabalhos submetidos ao evento, e a Comissão Organizadora, que ficará incumbida de todos os outros aspectos da organização. A programação científica será definida pela Diretoria, pelo Conselho Diretor da ABE e pela Comissão Científica e deverá contemplar diversas áreas da Estatística. Os membros das duas comissões, bem como seus coordenadores, serão escolhidos pela Diretoria e pelo Conselho Diretor da ABE.

II. A EMR e a ESTE são reuniões de áreas específicas e serão realizadas de dois em dois anos, nos anos ímpares. As comissões organizadora e científica e o local de realização serão aprovadas pela Diretoria e pelo Conselho Diretor da ABE. Outras reuniões específicas poderão ser incluídas nessa modalidade a pedido de qualquer associado da ABE e desde que já tenha sido realizada pelo menos três vezes.

III. As Reuniões Regionais da ABE são reuniões que têm o objetivo de proporcionar a discussão de temas de interesse locais ligados à Estatística. As comissões organizadoras e o local de realização serão aprovados pela Diretoria e pelo Conselho Diretor da ABE.

IV. Outras reuniões poderão ser apoiadas pela ABE, com a aprovação da Diretoria e do Conselho Diretor da ABE.

No Art 6º.

"... texto corrente

b) Honorários, os que prestaram, segundo Julgamento do Conselho Diretor, serviços relevantes à ABE ou à Estatística;

alteração proposta

b) Sócio honorário - O título de Associado Honorário será concedido ao estatístico que tiver contribuído de maneira significativa para o desenvolvimento da Estatística no Brasil.

No Art 9º.

texto corrente

O candidato a Associado Honorário deverá ser apresentado por, no mínimo, 20 (vinte) Associados Titulares, ou por iniciativa de todos os membros da Diretoria, cabendo ao Conselho Diretor a sua aprovação.

alteração proposta

O candidato a Associado Honorário deverá ter pelo menos 60 anos e ser apresentado por, no mínimo 5 associados titulares ou por iniciativa de todos os membros da Diretoria , cabendo ao CD a sua aprovação.

CAPITULO IV . DOS ÓRGÃOS DELIBERATIVOS E DE FISCALIZAÇÃO
No Art 23º. Inclusão do § 3º

alteração proposta

§ 3º - As reuniões do Conselho Diretor poderão ocorrer presencial ou via Internet.

CAPITULO V. DOS ÓRGÃOS DE GESTÃO No Art 26º. Inclusão do § 3º.

texto corrente

A Diretoria é composta de um Diretor Presidente, um Secretário Geral e um Diretor Tesoureiro, eleitos entre os Associados Titulares, em Assembléia Geral, para um mandato de 2 (dois) anos, vedada a reeleição.

alteração proposta

A Diretoria é composta de um Diretor Presidente, um Secretário Geral e um Diretor Tesoureiro, eleitos entre os Associados Titulares, em Assembléia Geral, para um mandato de 2 (dois) anos. O Secretário Geral e o Diretor Tesoureiro poderão se candidatar na gestão seguinte, desde que em cargo diferente. É vedada a candidatura do Diretor Presidente em qualquer cargo da gestão seguinte.

CAPÍTULO VI . DAS ELEIÇÕES No Art 35º. Inclusão do § 1º. e 2º

texto corrente

As eleições para os cargos da Diretoria e Conselho Diretor serão procedidas pela Assembléia Geral e somente poderão ser candidatos os Associados:
I - pertencentes à categoria de Associados Titulares, que estejam quites com suas obrigações perante a Associação e no gozo de seus direitos;
II - candidatos individuais às vagas do Conselho Diretor e as chapas completas para os cargos da Diretoria, desde que inscritos até duas semanas antes do início das eleições.
Parágrafo Único – A Diretoria divulgará as chapas e a relação de candidatos individuais inscritos com pelo menos uma semana antes do início das eleições.

alteração proposta

As eleições para os cargos da Diretoria e do Conselho Diretor serão conduzidas pela Assembleia Geral e somente poderão ser candidatos.

I- Os Associados Titulares que esteja quites com suas obrigações perante a Associação.

II- candidatos individuais às vagas do Conselho Diretor e as chapas completas para os cargos da Diretoria, desde que inscritos antes de duas semanas da data de início das eleições.

§ 1º – A Diretoria divulgará as chapas e a relação de candidatos individuais inscritos com pelo menos uma semana antes do início das eleições.
§ 2º- A eleição poderá ser realizada por meio eletrônico ou por cédula.

CAPITULO X - DO EXERCÍCIO FINANCEIRO No Art 44º.

texto corrente

Art. 44 - O exercício financeiro começa dia 1º de outubro e termina dia 30 de setembro.

alteração proposta

- O exercício financeiro começa dia 1o de setembro e termina dia 30 de agosto quando se encerra o mandato da diretoria.

CAPITULO XIV - DISPOSIÇÕES TRANSITÓRIAS No Art 51º.

texto corrente

O mandato da atual Diretoria encerra-se no dia 31 de julho de 2010.

alteração proposta

O mandato da atual Diretoria encerra-se no dia 30 de agosto de cada biênio das eleições.

Exhibit C.II - Second Prong: Letters of Support

August 6, 2025
Curitiba, Paraná, Brazil

Dear Immigration Officer,

I am writing to recommend Mr. José Evandeilton Lopes for the EB-2 National Interest Waiver (NIW) category. Over the years, I have observed a professional who does not merely adjust models; he structures problems, tests hypotheses with discipline, and transforms prototypes into auditable routines that support decision-making in demanding environments.

My name is Walmes Marques Zeviani. I hold a Bachelor's degree in Agronomy from the Federal University of Grande Dourados (2007), and a Master's and Ph.D. in Statistics and Agricultural Experimentation from the Federal University of Lavras (2009; 2013). I currently serve as a Professor in the Department of Statistics at the Federal University of Paraná (UFPR), with a focus on Experimental Design and Regression Models.

My contact with Mr. José began during his undergraduate studies at UFPR, in the courses Statistical Computing with R and Experimental Design, which I taught. Since then, I have followed his professional development through academic activities and conferences, including SINAPE 2012 (João Pessoa, Pernambuco), where he demonstrated a consistent interest in statistical inference and computational methods.

What stands out most in his professional trajectory is the large-scale application of statistical models and fraud detection algorithms in the private sector, where he has demonstrated a unique ability to translate theoretical principles of programming and modeling into high-impact practical solutions. His work combines a strong command of R with data engineering practices and documentation that facilitate reproducibility and maintenance, critical aspects when solutions must be scalable and sustainable.

Equally noteworthy is his strong commitment to teaching and disseminating technology. Through online content and courses offered on open platforms such as Coursera, Mr. Lopes has trained more than 850 professionals in Data Science and the R programming language. This engagement reflects not only technical excellence but also a genuine commitment to empowering teams and contributing actively to the community. This profile, combining technical expertise with the promotion of a culture of knowledge sharing, positions him as a true catalyst for innovation.

Among his most distinctive strengths is the combination of solid technical competence and a genuine vocation for knowledge sharing. Since his undergraduate years, he has demonstrated initiative in understanding, applying, and actively discussing complex concepts. His efforts to promote the use of R among professionals at different levels, both in academic and private-sector environments, demonstrate leadership as well as strategic awareness of the importance of technology. His ability to act simultaneously as an educator and as a problem-solver in complex corporate environments is rare and results in stable, transparent solutions, which are particularly valuable in regulated and data-intensive settings.

In the United States, I foresee immediate application of his skill set in universities, research centers, and industries such as financial services and technology. Mr. Lopes's ability not only to model, but also to plan, measure, and monitor analytical processes contributes to more reliable decision-making, mitigation of operational risks, and enhanced analytical productivity.

For these reasons, I fully support Mr. José Evandeilton Lopes' petition for classification under the EB-2 National Interest Waiver. He combines academic preparation, applied experience, and a commitment to developing others, attributes that support lasting contributions to scientific and technological advancement in the United States.

Please feel free to contact me should you require any additional information.

Sincerely,

gov.br
Digitally signed document
WALMES MARQUES ZEVIANI
Date: 09/06/2025 4:56:05 PM -0300
Check at https://validar.iti.gov.br

Walmes Marques Zeviani
Professor, Federal University of Paraná, Department of Statistics
Email: walmes@ufpr.br
Phone: +55 (41) 3361-3573

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana

_____ **Date: February 20, 2026**

6 de Agosto de 2025
Curitiba, Paraná, Brasil

Caro(a) Oficial de Imigração,

Escrevo para recomendar o Sr. José Evandeilton Lopes para a categoria EB-2 NIW. Ao longo dos anos, observei um profissional que não se limita a ajustar modelos, ele organiza problemas, testa hipóteses com disciplina e transforma protótipos em rotinas auditáveis, capazes de sustentar decisões em ambientes exigentes.

Sou Walmes Marques Zeviani, bacharel em Agronomia pela Universidade Federal da Grande Dourados (2007), mestre e doutor em Estatística e Experimentação Agropecuária pela Universidade Federal de Lavras (2009; 2013). Atuo como professor no Departamento de Estatística da Universidade Federal do Paraná (UFPR), com foco em Planejamento de Experimentos e Modelos de Regressão.

Meu contato com o Sr. José começou ainda em sua graduação na UFPR, nas disciplinas de Estatística Computacional com R e Planejamento de Experimentos, as quais ministrei. Desde então, passei a acompanhar sua evolução em atividades acadêmicas e eventos, como o SINAPE 2012 (João Pessoa, PB), no qual evidenciou interesse consistente por inferência e computação estatística.

O que mais se evidencia em sua trajetória profissional é a aplicação em grande escala de modelos estatísticos e algoritmos de detecção de fraude no setor privado, área em que demonstrou capacidade singular de transformar princípios teóricos de programação e modelagem em soluções práticas de alto impacto. Sua atuação combina domínio de R com práticas de engenharia de dados e documentação que facilitam reprodutibilidade e manutenção, aspectos decisivos quando as soluções precisam durar e escalar.

Também merece destaque sua notável vocação para o ensino e a disseminação de tecnologia. Por meio de conteúdo online e cursos em plataformas abertas como o Coursera, o Sr. Lopes já capacitou mais de 850 profissionais em Ciência de Dados e linguagem R. Essa atuação reflete não apenas sua excelência técnica, mas também sua disposição em capacitar equipes e contribuir ativamente para a comunidade. Esse perfil, que alia competência profissional à promoção de uma cultura de compartilhamento de conhecimento, o torna um verdadeiro catalisador de inovação.

Entre seus maiores diferenciais está a combinação entre competência técnica sólida e uma vocação genuína para compartilhar conhecimento. Desde a graduação, demonstrou proatividade ao buscar compreender, aplicar e discutir conceitos de forma ativa. Sua iniciativa em difundir o uso de R entre profissionais de diferentes níveis, tanto no setor acadêmico quanto no privado, evidencia não apenas sua liderança, mas também sua compreensão da importância estratégica da tecnologia. Essa capacidade de atuar simultaneamente como educador e como solucionador de problemas complexos no ambiente corporativo é um diferencial raro e resulta em soluções estáveis e

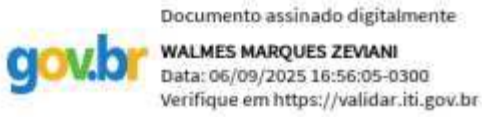
transparentes, o que interessa diretamente a ambientes regulados e intensivos em dados.

Nos Estados Unidos, vejo aplicação imediata desse conjunto de competências em universidades, centros de pesquisa e setores como serviços financeiros e tecnologia. A capacidade do Sr. Lopes de planejar, medir e monitorar, não apenas modelar, contribui para decisões mais confiáveis, mitigação de riscos operacionais e ganho de produtividade analítica.

Por essas razões, apoio integralmente o pedido do Sr. José Evandeilton Lopes para o EB-2 NIW. Ele alia preparo acadêmico, experiência aplicada e compromisso com a formação de pessoas, atributos que favorecem contribuições duradouras ao desenvolvimento científico e tecnológico.

Fico à disposição para quaisquer outras informações.

Cordialmente,



Walmes Marques Zeviani
Professor, Universidade Federal do Paraná, Departamento de Estatística
E-mail: walmes@ufpr.br
Telefone: +55 (41) 3361-3573



Walmes Marques Zeviani

Address to access this CV: http://lattes.cnpq.br/4410617539281650
ID Lattes: **4410617539281650**
Last updated: 08/07/2023

bachelor's at Agronomia from Universidade Federal da Grande Dourados (2007), master's at Agronomy from Universidade Federal de Lavras (2009) and doctorate at Statistics from Universidade Federal de Lavras (2013). Has experience in Probability and Statistics, focusing on Planning of Experiments, acting on the following subjects: regressão, gompertz, latossolo, regressão não linear and máxima verossimilhança. **(Text informed by the author)**

Personal Information

Name

Walmes Marques Zeviani

Bibliographic Citation

ZEVIANI, W. M.;Zeviani, Walmes Marques;ZEVIANI, WALMES;ZEVIANI, WALMES M.;WALMES, MARQUES ZEVIANI;ZEVIANI, WM;ZEVIANI, WALMES M

Lattes iD

http://lattes.cnpq.br/4410617539281650

Nationality

Brazil

Address

Professional Address

Federal University of Paraná,
Department of Statistics.
Laboratory of Statistics and Geoinformation,
Polytechnic Center (Campus III)
Jardim das Américas
81531990 - Curitiba, PR - Brazil - Mailbox: 19081
Telephone: (41) 33613573
Homepage URL: www.leg.ufpr.br/~walmes

Formal Education/Degree

2009 - 2013

Ph.D. in Statistics and Agricultural Experimentation.
Federal University of Lavras, UFLA, Brazil. Year of degree: 2013.
Advisor: Joel Augusto Muniz.
Co-advisor: Paulo Justiniano Ribeiro Junior.
Scholarship holder of: Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil.

2008 - 2009

Master in Statistics and Agricultural Experimentation.
Federal University of Lavras, UFLA, Brazil. Year of degree: 2009.
Advisor: Joel Augusto Muniz.
Co-advisor: Carlos Alberto Silva.
Scholarship holder of: Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil.
Keywords: Bates & Watts curvature; Box bias; bootstrap; half-life.
Major Area: Exact and Earth Sciences
Major Area: Agrarian Sciences / Area: Agronomy
Subarea: Soil Science / Specialty: Soil Chemistry

2003 - 2007

Graduation in Agronomy.
Federal University of Grande Dourados, UFGD, Brazil.
Advisor: Edgard Jardim Rosa Junior.

Professional Experience

Federal Institute of Education, Science and Technology of Mato Grosso, IFMT, Brazil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Federal University of Grande Dourados (UFGD), Brazil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Federal Institute of Goiás, IF Goiano, Brazil.

Contract

2013 - Present

Type of contract: , Functional Placement:

State University of Ponta Grossa (UEPG), Brazil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Federal University of Paraná (UFPR), Brazil.

Contract

2010 - Present

Type of contract: Government Employee, Functional Placement: Assistant Professor, Credit Hours: 40, Regime: Exclusive Dedication.

Research projects

2017 - Current

Optimal Designs for Regression Models

Planning an experiment is one of the most important stages of scientific research. An appropriate experimental design establishes a reliable framework and, in most cases, facilitates subsequent stages of research, such as data analysis and interpretation of results. Regression models are frequently used in the analysis of designed experiments when quantitative factors are studied. Polynomial models are

the most commonly used, followed by nonlinear models and, more recently, semi-parametric models such as splines. Researchers often choose, empirically, the number and levels of factors to be studied, predominantly using designs with equally spaced levels. Optimal design is the area of Statistics dedicated to the development of methods for obtaining experimental designs with desirable mathematical or practical properties. Several optimality criteria exist that allow for the construction of designs aimed, for example, at maximizing parameter estimation precision or minimizing prediction variance under the model. In addition, there are experimental designs commonly employed in factorial experiments, such as those based on the Pan Puebla III matrix and the Baconian matrix, which present favorable properties, although they are still relatively underutilized. This project aims to study, propose, and evaluate optimal designs for regression models applied to the analysis of experiments, considering linear, nonlinear, and semi-parametric predictors for exponential family distributions under both fixed-effects and mixed-effects models.

2014 – Current

Comparative Epidemiology among Colletotrichum Species Causing Glomerella Leaf Spot and Characterization of Isolate Populations in Apple Trees

Project certified by the coordinator Louise Larissa May De Mio on 02/25/2014.

Description: Universal Call for Proposals Project No. 483566/2013-6.
Situation: In progress; Nature: Research. Participant students: Graduation: (1).

Members: Walmes Marques Zeviani – Member / Paulo Justiniano Ribeiro Júnior – Member / Louise Larissa May De Mio – Coordinator / Henrique Aparecido Laureano – Member

2013 – Current

Nonlinear Regression Models

Description: Development of methodology and applications of regression models in the agricultural sciences. Proposal and evaluation of models and parameterizations. Assessment of the effects of experimental factors through nonlinear regression. Nonlinear regression applied to planned experiments. Nonlinear mixed-effects models.
Situation: In progress; Nature: Research. Participant students: Graduation: (2) / Academic master's degree: (1).

Members: Walmes Marques Zeviani – Coordinator / Paulo Justiniano Ribeiro Júnior – Member / Louise Larissa May De Mio – Member

2013 - Current

Prospecting Antagonists in Production Systems and the Use of Chemical and Biological Elicitors for Soybean Disease Control in the Context of Reduced Fungicide Efficiency

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Member / Louise Larissa May De Mio – Coordinator

2013 - Current

Conservation Management System for Eucalyptus Cultivation in the Western Region of Mato Grosso and Its Relationship with Biotic Crop Factors

Project certified by the coordinator, Milson Evaldo Serafim in 02/21/2014.

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Member / Milson Evaldo Serafim – Coordinator

2013 – Current

Mitigation of Edaphoclimatic Constraints for Eucalyptus Cultivation in Tropical Regions: Innovative Conservation Management System and Its Relationship with Biotic Crop Factors

Project certified by the coordinator Milson Evaldo Serafim in 07/22/2014.

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Member / Milson Evaldo Serafim – Coordinator

2013 - Current

Replacement of Soybean Meal with Crambe (Crambe abyssinica Hoechst) Oilseed Cake, a Byproduct of Biodiesel Production, in Cattle Feed

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Coordinator / Rafael Henrique de Tonissi e Buschinelli de Goes – Member

2013 - Current

Soil Structural Changes in the Quantification of Critical Mechanized Harvesting Operations and Their Effects on Productivity Losses and Industrial Quality of Sugarcane

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Member / Eduardo da Costa Severiano – Coordinator

2013 - Current

Structural Changes and Spatial Distribution of Vertical Stresses Applied to Soil by Sugarcane Machinery During Crop Development

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Coordinator / Eduardo da Costa Severiano – Member

2013 - Current

Fig Rust: Etiology and Epidemiology for Management in Organic Production Systems

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani – Coordinator / Maristella Dalla Pria – Member

Extension projects

2019 - Current

Lecture Series in Data Science

Description: PROEX Public Notice No. 77/2018 – Extension Activities Without Financial Burden to UFGD. Protocol 338999.1777.18358.16092019. The project emphasizes data science and the use of software for probabilistic analysis. Collaborators and volunteers from companies and educational and research institutions in Brazil and internationally contribute to the initiative. During the lectures, software tools relevant to students' interests are used, and demonstrative statistical analyses are conducted, followed by a discussion of methods and results. The objective is to promote academic development and motivate students toward further study and professional engagement in data science.
Situation: In progress; Nature: Extension. Participant students: Graduation: (10) / Academic master's degree: (8) / Doctorate: (4).

Members: Walmes Marques Zeviani – Coordinator / Leonardo de Oliveira Seno – Member / Marcelo Corrêa da Silva – Member / João Augusto Rossi Borges – Member / Marina R Maestre – Member

Member of editorial board

2013 - Present

Scientific Journal: Sigmae

Scientific journal referee

2011 - Present

Journal: Revista Brasileira de Fruticultura (Print)

2012 - Present

Journal: Revista de Ciências Agrárias / Amazonian Journal of Agricultural and Enviro

2015 - Present

Journal: Revista Brasileira de Climatologia

2016 - Present

Journal: Ciência e Agrotecnologia (UFLA)

2017 - Present

Journal: Scientia Agraria (UFPR. Print)

2016 - Present

Journal: CERNE (UFLA)

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Statistics/Specialty: Experiment Planning.

Languages

English

Comprehends Well, Speaks Reasonably, Reads Well, Writes Reasonably.

Spanish

Comprehends Reasonably, Speaks Reasonably, Reads Well, Writes Reasonably.

Scientific, Technological, Artistic and Cultural Production

Bibliographical Production

Full articles published in journals

Sort by

Chronological Order

1.

SERAFIM, MILSON EVALDO ; MENDES, IEDA CARVALHO ; WU, JINGTAO ; ONO, FABIO BENEDITO ; ZANCANARO, LEANDRO ; VALENDORFF, JOSÉ DAVID PICCOLI ; **Zeviani, Walmes Marques** ; PIERANGELI, MARIA APARECIDA PEREIRA ; FAN, MANMAN ; LAL, RATTAN . Soil physicochemical and biological properties in soybean areas under no-till Systems in the Brazilian Cerrado. SCIENCE OF THE TOTAL ENVIRONMENT JCR, v. 862, p. 160674, 2023. **Citations:** WEB OF SCIENCE 10 | SCOPUS 3

2.

CASTELLAR, CAMILLA ; ZELA, CAMILA IAVORSKI ; **Zeviani, Walmes Marques** ; MAY DE MIO, LOUISE LARISSA . Successful management of Grapevine leaf spot with fungicides programs to avoid infections of primary inoculum. CROP

PROTECTION JCR, v. 172, p. 106335, 2023. **Citations:** WEB OF SCIENCE 1 | SCOPUS 1

3.

SILVEIRA, A. B. ; CARVALHO, S. P. C. E. ; NICOLETTI, M. F. ; SILVA, C. A. ; DRESCHER, R. ; CARVALHO, M. P. L. C. E. ; MADI, J. P. S. ; TOPANOTTI, L. R. ; **WALMES, MARQUES ZEVIANI** ; ANDRADE, V. C. L. . Impact of plot size on tropical forest structure and diversity estimation. REVISTA DE BIOLOGIA TROPICAL JCR, v. 70, p. 437, 2022. **Citations:** WEB OF SCIENCE 2 | SCOPUS 1

4.

VIDAL, GLÓRIA SORIANO ; KLEINA, HELOISA THOMAZI ; BEGER, GIOVANA ; **Zeviani, Walmes Marques** ; MAY DE MIO, LOUISE LARISSA ; DUARTE, HENRIQUE DA SILVA SILVEIRA . Comparative study on the monocyclic components of plum rust with isolates from three growing regions in Brazil. JOURNAL OF PHYTOPATHOLOGY JCR, v. 169, p. 193-201, 2021.

5.

CARDUCCI, CARLA ELOIZE ; OLIVEIRA, GERALDO CÉSAR DE ; **Zeviani, Walmes Marques** ; LAUREANO, HENRIQUE APARECIDO ; BARBOSA, SAMARA MARTINS ; SEVERIANO, EDUARDO DA COSTA ; CURI, NILTON . Preconsolidation stress of gibbsitic and kaolinitic Oxisols under a multipractice conservationist coffee system. SEMINA. CIÊNCIAS AGRÁRIAS (ONLINE) JCR, v. 42, p. 1049-1068, 2021.

6.

ROGOVSKI CZAJA, ELIANE APARECIDA ; **Zeviani, Walmes Marques** ; DALLA PRIA, MARISTELA ; MAY DE MIO, LOUISE LARISSA . Monocycle components of fig rust comparing in vivo and ex vivo methodology. EUROPEAN JOURNAL OF PLANT PATHOLOGY JCR, v. 1, p. 1-11, 2021. **Citations:** WEB OF SCIENCE 3 | SCOPUS 1

7.

BARBOSA, SAMARA MARTINS ; CARDUCCI, CARLA ELOIZE ; SERAFIM, MILSON EVALDO ; **Zeviani, Walmes Marques** ; ALBACH, BREIDI ; CASTRO, ELISA DE MELO ; DE OLIVEIRA, GERALDO CÉSAR . Using ultrasonic and microwave devices to dry and disperse soils with high Fe2O3 content from Brazil. GEODERMA REGIONAL JCR, v. 26, p. e00419, 2021. **Citations:** WEB OF SCIENCE 4 | SCOPUS 4

8.

LICHTEMBERG, P. S. F. ; MOREIRA, L. M. ; **ZEVIANI, W. M.** ; AMORIM, L. ; DE MIO, L. L. MAY . Dispersal gradient of M. fructicola conidia from peach orchard to an open field. European Journal of Plant Pathology JCR, v. 162, p. 231-236, 2021. **Citations:** WEB OF SCIENCE 3 | SCOPUS 4

9.

DE JESUS, RODRIGO MORAES; DA SILVA, MARCELO CORRÊA; **ZEVIANI, WALMES MARQUES**; PEREIRA, RODRIGO MOURA; CARDUCCI, CARLA ELOIZE. PASTURE-BASED CATTLE PRODUCTION IN LAGUNA CARAPÃ, MS, FROM THE PERSPECTIVE OF LAND-USE TRANSITION. ORGANIZAÇÕES RURAIS & AGROINDUSTRIAIS, V. 23, P. 1789, 2021.

10.

DA SILVA, ESDRAS HENRIQUE ; CAMPOS, VICENTE PAULO ; ROCHA, FERNANDO DA SILVA ; **Zeviani, Walmes Marques** ; TERRA, WILLIAN CÉSAR ; RIGITANO, RENÊ LUÍS DE OLIVEIRA . INTERFERENCE OF ALDICARB IN INFECTIVE FORMS OF Meloidogyne incognita AND ITS EFFECTS ON REPRODUCTION IN SOYBEAN. REVISTA DE AGRICULTURA NEOTROPICAL JCR, v. 7, p. 1-8, 2020. **Citations:** WEB OF SCIENCE 3

11.

MOREIRA, RAFAELE REGINA ; BERGAMIN FILHO, ARMANDO ; **Zeviani, Walmes Marques** ; MAY DE MIO, LOUISE LARISSA . Comparative epidemiology of three Colletotrichum species complex causing Glomerella leaf spot on apple. EUROPEAN JOURNAL OF PLANT PATHOLOGY JCR, v. 158, p. 473-484, 2020. **Citations:** WEB OF SCIENCE 5 | SCOPUS 4

12.

FLORENTIM, ELYSON THIAGO DE SOUZA ; CORREA, HELEN CAROLINE RODRIGUES ; MARTINS, PALOMA EMANUELA BRAGA ; SILVA, FULVIANNY CRISTINA DA ; **Zeviani, Walmes Marques** ; SERAFIM, MILSON EVALDO . PHYSICAL SOIL ATTRIBUTES IN DIFFERENT EUCALYPTUS CROP MANAGEMENT SYSTEMS IN WESTERN MATO GROSSO, BRAZIL. FLORESTA (ONLINE) (CURITIBA), v. 50, p. 1679, 2020. **Citations:** SCOPUS 1

13.

WANDERSON, MENDES MARTINS ; LEONARDA, GRILLO NEVES ; KELLY, LANA ARAÚJO ; ADRIEL, FERNANDES CORREA ; **WALMES, MARQUES ZEVIANI** ; BRUNO, MONTOANI SILVA ; THIAGO, ALEXANDRE SANTANA GILIO ; MILSON, EVALDO SERAFIM . Soil hydro-physical attributes under management practices for pineapple genotypes cultivation. AFRICAN JOURNAL OF AGRICULTURAL RESEARCH JCR, v. 14, p. 652-658, 2019.

I, Marina Viana Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that I have performed the professional translation of this document from Portuguese to English, as a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Marina Viana **Date: February 20, 2026**



Walmes Marques Zeviani

Address to access this CV: http://lattes.cnpq.br/4410617539281650
ID Lattes: **4410617539281650**
Last updated: 07/08/2023

bachelor's at Agronomia from Universidade Federal da Grande Dourados (2007), master's at Agronomy from Universidade Federal de Lavras (2009) and doctorate at Statistics from Universidade Federal de Lavras (2013). Has experience in Probability and Statistics, focusing on Planning of Experiments, acting on the following subjects: regressão, gompertz, latossolo, regressão não linear and máxima verossimilhança. **(Text informed by the author)**

Personal Information

Name

Walmes Marques Zeviani

Bibliographic Citation

ZEVIANI, W. M.;Zeviani, Walmes Marques;ZEVIANI, WALMES;ZEVIANI, WALMES M.;WALMES, MARQUES ZEVIANI;ZEVIANI, WM;ZEVIANI, WALMES M

Lattes iD

http://lattes.cnpq.br/4410617539281650

Nationality

Brasil

Address

Professional Address

Universidade Federal do Paraná, Departamento de Estatística.
Laboratório de Estatística e Geoinformação, Centro Politecnico (campus III)
Jardim das Américas
81531990 - Curitiba, PR - Brasil - Mailbox: 19081
Telephone: (41) 33613573
Homepage URL: www.leg.ufpr.br/~walmes

Formal Education/Degree

2009 - 2013

Ph.D. in Estatística e Experimentação Agropecuária.
Universidade Federal de Lavras, UFLA, Brasil. , Year of degree: 2013.
Advisor: Joel Augusto Muniz.
Co-advisor: Paulo Justiniano Ribeiro Junior.
Scholarship holder of: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.

2008 - 2009

Master in Estatística e Experimentação Agropecuária.
Universidade Federal de Lavras, UFLA, Brasil. Year of degree: 2009.
Advisor: Joel Augusto Muniz.
Co-advisor: Carlos Alberto Silva.
Scholarship holder of: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.
Keywords: Curvatura de Bates & Watts; Vício de Box; bootstrap; tempo de meia vida.
Major Area: Exact and Earth Sciences
Major Area: Agrarian Sciences / Area: Agronomy / Subarea: Ciência do Solo / Specialty: Química do Solo.

2003 - 2007

Graduation in Agronomia.
Universidade Federal da Grande Dourados, UFGD, Brasil.
Advisor: Edgard Jardim Rosa Junior.

Professional Experience

Instituto Federal de Educação Ciência e Tecnologia de Mato Grosso, IFMT, Brasil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Universidade Federal da Grande Dourados, UFGD, Brasil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Instituto Federal Goiano, IF Goiano, Brasil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Universidade Estadual de Ponta Grossa, UEPG, Brasil.

Contract

2013 - Present

Type of contract: , Functional Placement:

Universidade Federal do Paraná, UFPR, Brasil.

Contract

2010 - Present

Type of contract: Government Employee, Functional Placement: Professor Assistente, Credit Hours: 40, Regime: Exclusive Dedication.

Research projects

2017 - Current

Delineamentos ótimos para modelos de regressão

Description: Planejar um experimento é uma das etapas mais importantes da pesquisa científica. Um delineamento experimental adequado vai estabelecer uma estrutura confiável e, quase sempre, facilitadora para as próximas etapas da pesquisa, como a análise dos dados e a interpretação dos resultados. Os modelos de regressão são frequentemente utilizados

na análise de experimentos planejados quando são estudados fatores quantitativos. Os polinômios são os modelos mais utilizados, seguidos pelos modelos não lineares e, recentemente, os modelos semi-paramétricos, como os splines. É usual o pesquisador escolher de forma empírica o número e os níveis dos fatores a serem estudados, utilizando, predominantemente, um delineamento com níveis equidistantes. Delineamentos ótimos é a área da Estatística voltada para o desenvolvimento de métodos para obtenção de delineamentos com propriedades matemáticas ou práticas desejáveis. Vários critérios de otimabilidade existem que permitem obter delineamentos, por exemplo, para máxima precisão das estimativas dos parâmetros ou mínima variância de predição pelo modelo. Além destes, existem delineamentos usualmente empregados para experimentos fatoriais, como os baseados na matriz Pan Puebla III e na matriz baconiana, que apresentam boas propriedades, embora pouco conhecidas, mas que são ainda subutilizados. Este projeto visa o estudo, proposição e avaliação de delineamentos ótimos para modelos de regressão aplicados na análise de experimentos, considerando preditores lineares, não lineares e semi-paramétricos para distribuições da família exponencial sob modelos de efeitos fixo e misto..
Situation: In progress; Nature: Research.
Participant students: Graduation: (2) .

Members: Walmes Marques Zeviani - Coordinator / Milson Evaldo Serafim - Member / Wagner Hugo Bonat - Member / Louise Larissa May De Mio - Member / Cesar Augusto Taconeli - Member.

2014 - Current

Epidemiologia comparativa entre espécies de Colletotrichum causadores da Mancha Foliar de Glomerella e caracterização de população de isolados em macieira

Project certified by the coordinator Louise Larissa May De Mio in 25/02/2014.

Description: Projeto Edital Universal n. 483566/2013-6..
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) .

Members: Walmes Marques Zeviani - Member / Paulo Justiniano Ribeiro Júnior - Member / Louise Larissa May De Mio - Coordinator / Henrique Aparecido Laureano - Member.

2013 - Current

Modelos de regressão não linear

Description: Desenvolvimento de metodologia e aplicações de modelos de regressão à ciências agrárias. Proposição e avaliação de modelos e parametrizações. Avaliação do efeito de fatores experimentais por meio de regressão não linear. Regressão não linear aplicada à experimentos planejados. Modelos não lineares de efeito misto..
Situation: In progress; Nature: Research.
Participant students: Graduation: (2) / Academic master's degree: (1) .

Members: Walmes Marques Zeviani - Coordinator / Paulo Justiniano Ribeiro Júnior - Member / Louise Larissa May De Mio - Member.

2013 - Current

Prospecção de antagonistas em sistemas de produção e uso de elicitores químicos e biológicos para o controle de doenças de soja diante da redução de eficiência de fungicidas

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Member / Louise Larissa May De Mio - Coordinator.

2013 - Current

Sistema de manejo conservacionista para a eucaliptocultura na Região Oeste de Mato Grosso e suas relações com fatores bióticos da cultura

Project certified by the coordinator Milson Evaldo Serafim in 21/02/2014.

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Member / Milson Evaldo Serafim - Coordinator.

2013 - Current

Mitigação de limitações edafoclimáticas para a eucaliptocultura em região tropical: sistema inovador de manejo conservacionista e suas relações com fatores bióticos da cultura

Project certified by the coordinator Milson Evaldo Serafim in 22/07/2014.

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Member / Milson Evaldo Serafim - Coordinator.

2013 - Current

Substituição do Farelo de Soja pela Torta de Crambe (Crambe abyssinica Hoechst), oriunda da produção de Biodiesel na alimentação de bovinos

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Coordinator / Rafael Henrique de Tonissi e Buschinelli de Goes - Member.

2013 - Current

Alterações estruturais do solo na quantificação da operação crítica de colheita mecanizada e seus efeitos sobre as perdas de produtividade e qualidade industrial da cana-de-açúcar

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Member / Eduardo da Costa Severiano - Coordinator.

2013 - Current

Alterações estruturais e distribuição espacial das tensões verticais aplicadas ao solo pelo maquinário canavieiro sob o desenvolvimento da cana-de-açúcar

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Coordinator / Eduardo da Costa Severiano - Member.

2013 - Current

Ferrugem da figueira:etiologia e epidemiologia para manejo em sistema orgânico

Situation: In progress; Nature: Research.

Members: Walmes Marques Zeviani - Coordinator / Maristella Dalla Pria - Member.

Extension projects

2019 - Current

Ciclo de Palestras em Ciência de Dados

Description: EDITAL PROEX Nº 77/2018 - AÇÕES DE EXTENSÃO SEM ÔNUS PARA A UFGD. Protocolo 338999.1777.18358.16092019. Ênfase em ciência de dados e utilização de softwares voltados para análises probabilísticas. Colaboradores e voluntários de empresas e setores da educação e pesquisa no Brasil e no mundo auxiliam nesse processo. Nas palestras são utilizados softwares de interesse dos alunos e são realizadas análises estatísticas demonstrativas, com debate sobre os métodos e resultados. Objetiva-se formação acadêmica e a motivação de alunos rumo a estudos e atuação profissional em ciência de dados..
Situation: In progress; Nature: Extension.
Participant students: Graduation: (10) / Academic master's degree: (8) / Doctorate: (4) .

Members: Walmes Marques Zeviani - Coordinator / Leonardo de Oliveira Seno - Member / Marcelo Corrêa da Silva - Member / João Augusto Rossi Borges - Member / Marina R Maestre - Member.

Member of editorial board

2013 - Present

Scientific Journal: Sigmae

Scientific journal referee

2011 - Present

Journal: Revista Brasileira de Fruticultura (Impresso)

2012 - Present

Journal: Revista de Ciências Agrárias / Amazonian Journal of Agricultural and Enviro

2015 - Present

Journal: Revista Brasileira de Climatologia

2016 - Present

Journal: Ciência e Agrotecnologia (UFLA)

2017 - Present

Journal: Scientia Agraria (UFPR. Impresso)

2016 - Present

Journal: CERNE (UFLA)

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Área: Probability and Statistics / Subarea: Estatística/Specialty: Planejamento de Experimentos.

Languages

English

Comprehends Well, Speaks Reasonably, Reads Well, Writes Reasonably.

Spanish

Comprehends Reasonably, Speaks Reasonably, Reads Well, Writes Reasonably.

Scientific, Technological, Artistic and Cultural Production

Bibliographical Production

Full articles published in journals

Sort by

Chronological Order

1.

SERAFIM, MILSON EVALDO ; MENDES, IEDA CARVALHO ; WU, JINGTAO ; ONO, FABIO BENEDITO ; ZANCANARO, LEANDRO ; VALENDORFF, JOSÉ DAVID PICCOLI ; **Zeviani, Walmes Marques** ; PIERANGELI, MARIA APARECIDA PEREIRA ; FAN, MANMAN ; LAL, RATTAN . Soil physicochemical and biological properties in soybean areas under no-till Systems in the Brazilian Cerrado. SCIENCE OF THE TOTAL ENVIRONMENT JCR, v. 862, p. 160674, 2023. **Citações:** WEB OF SCIENCE 10 | SCOPUS 3

2.

CASTELLAR, CAMILLA ; ZELA, CAMILA IAVORSKI ; **Zeviani, Walmes Marques** ; MAY DE MIO, LOUISE LARISSA . Successful management of Grapevine leaf spot with fungicides programs to avoid infections of primary inoculum. CROP

PROTECTION JCR, v. 172, p. 106335, 2023. **Citações:** WEB OF SCIENCE 1 | SCOPUS 1

3.

SILVEIRA, A. B. ; CARVALHO, S. P. C. E. ; NICOLETTI, M. F. ; SILVA, C. A. ; DRESCHER, R. ; CARVALHO, M. P. L. C. E. ; MADI, J. P. S. ; TOPANOTTI, L. R. ; **WALMES, MARQUES ZEVIANI** ; ANDRADE, V. C. L. . Impact of plot size on tropical forest structure and diversity estimation. REVISTA DE BIOLOGIA TROPICAL JCR, v. 70, p. 437, 2022. **Citações:** WEB OF SCIENCE 2 | SCOPUS 1

4.

VIDAL, GLÓRIA SORIANO ; KLEINA, HELOISA THOMAZI ; BEGER, GIOVANA ; **Zeviani, Walmes Marques** ; MAY DE MIO, LOUISE LARISSA ; DUARTE, HENRIQUE DA SILVA SILVEIRA . Comparative study on the monocyclic components of plum rust with isolates from three growing regions in Brazil. JOURNAL OF PHYTOPATHOLOGY JCR, v. 169, p. 193-201, 2021.

5.

CARDUCCI, CARLA ELOIZE ; OLIVEIRA, GERALDO CÉSAR DE ; **Zeviani, Walmes Marques** ; LAUREANO, HENRIQUE APARECIDO ; BARBOSA, SAMARA MARTINS ; SEVERIANO, EDUARDO DA COSTA ; CURI, NILTON . Preconsolidation stress of gibbsitic and kaolinitic Oxisols under a multipractice conservationist coffee system. SEMINA. CIÊNCIAS AGRÁRIAS (ONLINE) JCR, v. 42, p. 1049-1068, 2021.

6.

ROGOVSKI CZAJA, ELIANE APARECIDA ; **Zeviani, Walmes Marques** ; DALLA PRIA, MARISTELA ; MAY DE MIO, LOUISE LARISSA . Monocycle components of fig rust comparing in vivo and ex vivo methodology. EUROPEAN JOURNAL OF PLANT PATHOLOGY JCR, v. 1, p. 1-11, 2021. **Citações:** WEB OF SCIENCE 3 | SCOPUS 1

7.

BARBOSA, SAMARA MARTINS ; CARDUCCI, CARLA ELOIZE ; SERAFIM, MILSON EVALDO ; **Zeviani, Walmes Marques** ; ALBACH, BREIDI ; CASTRO, ELISA DE MELO ; DE OLIVEIRA, GERALDO CÉSAR . Using ultrasonic and microwave devices to dry and disperse soils with high Fe2O3 content from Brazil. GEODERMA REGIONAL JCR, v. 26, p. e00419, 2021. **Citações:** WEB OF SCIENCE 4 | SCOPUS 4

8.

LICHTEMBERG, P. S. F. ; MOREIRA, L. M. ; **ZEVIANI, W. M.** ; AMORIM, L. ; DE MIO, L. L. MAY . Dispersal gradient of M. fructicola conidia from peach orchard to an open field. European Journal of Plant Pathology JCR, v. 162, p. 231-236, 2021. **Citações:** WEB OF SCIENCE 3 | SCOPUS 4

9.

DE JESUS, RODRIGO MORAES ; DA SILVA, MARCELO CORRÊA ; **Zeviani, Walmes Marques** ; PEREIRA, RODRIGO MOURA ; CARDUCCI, CARLA ELOIZE . BOVINOCULTURA A PASTO EM LAGUNA CARAPÃ-MS SOB A ÓTICA DA TRANSIÇÃO DO USO DO SOLO. ORGANIZAÇÕES RURAIS & AGROINDUSTRIAIS, v. 23, p. 1789, 2021.

10.

DA SILVA, ESDRAS HENRIQUE ; CAMPOS, VICENTE PAULO ; ROCHA, FERNANDO DA SILVA ; **Zeviani, Walmes Marques** ; TERRA, WILLIAN CÉSAR ; RIGITANO, RENÊ LUÍS DE OLIVEIRA . INTERFERENCE OF ALDICARB IN INFECTIVE FORMS OF Meloidogyne incognita AND ITS EFFECTS ON REPRODUCTION IN SOYBEAN. REVISTA DE AGRICULTURA NEOTROPICAL JCR, v. 7, p. 1-8, 2020. **Citações:** WEB OF SCIENCE 3

11.

MOREIRA, RAFAELE REGINA ; BERGAMIN FILHO, ARMANDO ; **Zeviani, Walmes Marques** ; MAY DE MIO, LOUISE LARISSA . Comparative epidemiology of three Colletotrichum species complex causing Glomerella leaf spot on apple. EUROPEAN JOURNAL OF PLANT PATHOLOGY JCR, v. 158, p. 473-484, 2020. **Citações:** WEB OF SCIENCE 5 | SCOPUS 4

12.

FLORENTIM, ELYSON THIAGO DE SOUZA ; CORREA, HELEN CAROLINE RODRIGUES ; MARTINS, PALOMA EMANUELA BRAGA ; SILVA, FULVIANNY CRISTINA DA ; **Zeviani, Walmes Marques** ; SERAFIM, MILSON EVALDO . PHYSICAL SOIL ATTRIBUTES IN DIFFERENT EUCALYPTUS CROP MANAGEMENT SYSTEMS IN WESTERN MATO GROSSO, BRAZIL. FLORESTA (ONLINE) (CURITIBA), v. 50, p. 1679, 2020. **Citações:** SCOPUS 1

13.

WANDERSON, MENDES MARTINS ; LEONARDA, GRILLO NEVES ; KELLY, LANA ARAÚJO ; ADRIEL, FERNANDES CORREA ; **WALMES, MARQUES ZEVIANI** ; BRUNO, MONTOANI SILVA ; THIAGO, ALEXANDRE SANTANA GILIO ; MILSON, EVALDO SERAFIM . Soil hydro-physical attributes under management practices for pineapple genotypes cultivation. AFRICAN JOURNAL OF AGRICULTURAL RESEARCH JCR, v. 14, p. 652-658, 2019.

August 5, 2025,
Curitiba, Paraná, Brazil

To whom it may concern,

My name is Silvia Emiko Shimakura. I hold a Bachelor's degree in Statistics from the São Paulo State University (1990), a Master's degree in Statistics from the State University of Campinas (1994), and a Doctorate Degree in Statistics from Lancaster University, United Kingdom (2003). Since 1993, I have been a member of the faculty at the Federal University of Paraná (UFPR), with a primary focus on applied statistics in health, including survival analysis, spatial processes, environmental epidemiology, and multi-state models. Since 2015, I have served as a permanent faculty member in the Graduate Program in Public Health.

I serve in the Department of Statistics within the Exact Sciences Division, at the Polytechnic Center of the Federal University of Paraná (UFPR). My responsibilities encompass undergraduate and graduate instruction, as well as collaborative research with different fields, particularly in the application of modern statistical methodologies to public health issues. In addition to teaching, I participate in data analysis projects, scientific consulting, and academic advising, contributing to knowledge production in the field.

I first met Mr. José Evandeilton Lopes during his undergraduate studies in Statistics at UFPR, when I taught biostatistics courses in which he was enrolled. I later served on the examining committee for his Undergraduate Thesis and, subsequently, for his master's thesis. I also supervised his work as a teaching assistant in courses within the field. The study developed for his undergraduate thesis resulted in our joint publication, "Likelihood analysis for a class of simplex mixed models," in the *Chilean Journal of Statistics*, which allowed me to closely observe his competence in scientific research. Both the article on Simplex Regression and his master's thesis, on models for postoperative pain scale data, are directly connected to the advanced statistical modeling we develop at the university, which enables me to confidently assess the quality and relevance of his contributions.

Since the early stages of his academic training, Mr. Lopes has demonstrated strong conceptual mastery combined with the ability to translate methods into analytical routines that function beyond the academic environment. During his master's program, he worked on modeling pain scale data from postoperative patients, conducting assumption testing, model diagnostics, and comparisons among model specifications with exemplary care. In his professional career, he has applied statistical modeling and machine learning techniques to areas such as solvency assessment and atypical transaction screening in the financial sector, producing measurable impacts on loss reduction and decision quality in large-scale operations.

From a technical standpoint, I highlight his proficiency in the R environment and his familiarity with advanced modeling approaches. He manages the full cycle of a project, from design to operational implementation, and maintains

longitudinal monitoring of model performance, with careful attention to stability, transparency, and reproducibility. In both academic and professional settings, he demonstrates a collaborative attitude and openness to critical review, which strengthens the quality of his deliverables.

Compared to professionals with similar academic backgrounds, Mr. Lopes presents an uncommon combination of methodological depth and the capacity to deliver at an institutional scale. His ability to convert statistical formulations into practical solutions for decision-makers, both in research environments and in organizations, has been recognized in different contexts.

I understand that these qualities directly address needs in the United States in areas such as public health, applied data science, and financial services. In regulated environments, the combination of methodological rigor, auditability, and the ability to operate with large volumes of data contributes to more reliable decision-making, evidence generation, and systemic gains.

For these reasons, I recommend Mr. José Evandeilton Lopes for the EB-2 NIW. His academic trajectory, publication record, and experience in high-impact projects demonstrate a professional capable of delivering scientific and institutional value in demanding, results-oriented environments.

Should you require any further information or clarification, I remain at your disposal.

Respectfully,

-----// signature //-----
Prof. Dr. Silvia Emiko Shimakura
Professor and Researcher in Statistics at UFPR
Email: silvia.shimakura@ufpr.br • Telephone: +55 (41) 984634921

I, Raphael Michels Fantinato de Moura, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: February 20, 2026.

5 de Agosto de 2025,
Curitiba, Paraná, Brasil

A quem possa interessar,

Meu nome é Silvia Emiko Shimakura. Sou Bacharel em Estatística pela Universidade Estadual Paulista (1990), Mestre em Estatística pela Universidade Estadual de Campinas (1994) e Doutora em Estatística pela Lancaster University, Reino Unido (2003). Desde 1993, faço parte do corpo docente da Universidade Federal do Paraná (UFPR), com atuação concentrada em estatística aplicada à saúde, abrangendo análise de sobrevivência, processos espaciais, epidemiologia ambiental e modelos multiestados. Desde 2015, integro como docente permanente o Programa de Pós-Graduação em Saúde Coletiva.

Atuo no Departamento de Estatística do Setor de Ciências Exatas, no Centro Politécnico da UFPR. Minhas atividades reúnem formação em graduação e pós-graduação e pesquisa colaborativa com diferentes áreas, especialmente na utilização de metodologias estatísticas modernas para questões de saúde pública. Além do ensino, participo de projetos de análise de dados, consultorias científicas e orientação acadêmica, contribuindo para a produção de conhecimento na área.

Conheci o Sr. José Evandeilton Lopes durante sua graduação em Estatística na UFPR, quando lecionei disciplinas de bioestatística das quais ele participou. Posteriormente, compus a banca de seu Trabalho de Conclusão de Curso e, mais adiante, a de sua dissertação de mestrado. Também o acompanhei como monitor em componentes curriculares da área. O estudo desenvolvido em seu TCC resultou em nossa publicação conjunta “Likelihood analysis for a class of simplex mixed models”, no *Chilean Journal of Statistics*, o que me permitiu observar de perto sua competência em investigação científica. Esses trabalhos, tanto o artigo sobre Regressão Simplex quanto a dissertação, sobre modelos para dados em escala de dor em pacientes pós-operatório, são temas que se conectam diretamente com a modelagem estatística avançada que desenvolvemos na universidade, o que me permite avaliar com propriedade a qualidade e a relevância de suas contribuições.

Desde as primeiras etapas de sua formação, o Sr. Lopes tem demonstrado domínio conceitual aliado à capacidade de transformar métodos em rotinas de análise que funcionam fora do ambiente acadêmico. No mestrado, trabalhou com modelagem de dados de escala de dor em pacientes no pós-operatório, conduzindo testes de suposições, diagnósticos de ajuste e comparações entre especificações de modelos com cuidado exemplar. Em sua trajetória profissional, empregou técnicas de modelagem estatística e aprendizado de máquina em frentes como avaliação de solvência e triagem de transações atípicas no setor financeiro, produzindo efeitos concretos sobre perdas e qualidade de decisão em operações de grande monta.

Do ponto de vista técnico, destaco sua proficiência no ambiente R e sua familiaridade com abordagens de modelagem avançada. Ele conduz o ciclo completo de um projeto, do delineamento ao uso operativo, e mantém

acompanhamento longitudinal do desempenho dos modelos, com atenção à estabilidade, à transparência e à reprodutibilidade. No convívio acadêmico e profissional, evidencia postura cooperativa e abertura a revisão crítica, o que fortalece a qualidade das entregas.

Em comparação com profissionais com formação semelhante, o Sr. Lopes apresenta uma combinação pouco comum de profundidade metodológica e capacidade de entrega em escala institucional. Sua aptidão para converter formulações estatísticas em soluções úteis para quem decide, tanto em ambientes de pesquisa quanto em organizações, tem sido reconhecida em diferentes contextos.

Entendo que essas qualidades dialogam diretamente com necessidades dos Estados Unidos em áreas como saúde coletiva, ciência de dados aplicada e serviços financeiros. Em contextos regulados, a combinação entre método rigoroso, auditabilidade e capacidade de operar com grandes volumes de dados contribui para decisões mais confiáveis, geração de evidências e ganhos sistêmicos.

Diante do exposto, recomendo o Sr. José Evandeilton Lopes para o EB2 NIW. Sua trajetória acadêmica, seu histórico de publicações e a experiência em projetos de alto impacto mostram um profissional capaz de entregar valor científico e institucional em ambientes exigentes e orientados a resultados.

Caso necessitem de mais informações ou esclarecimentos adicionais, estou à disposição para atendê-los.

Respeitosamente,



Prof. Dra. Silvia Emiko Shimakura
Professora e Pesquisadora em Estatística na UFPR
Email: silvia.shimakura@ufpr.br • Telefone: +55 (41) 984634921



Silvia Emiko Shimakura

Address to access this CV: http://lattes.cnpq.br/4949546028857946
ID Lattes: **4949546028857946**
Last updated: 04/04/2025

Bachelor in Statístics at Paulista State University (1990), MSc in Statistics at Campinas State University (1994) and PhD in Statistics at Lancaster University, UK (2003). Professor at Federal Paraná University, Brazil, with experience in Medical Statistics, especially in the following topics: survival analysis, spatial statistics, environmental epidemiology and multi-state models. Since 2015 is a permanent member of the Public Health Postgraduate Programme. **(Text informed by the author)**

Personal Information

Name

Silvia Emiko Shimakura

Bibliographic Citation

SHIMAKURA, S.;Shimakura, Silvia;Shimakura, Silvia Emiko;Shimakura, S. E.;EMIKO SHIMAKURA, SILVIA;SHIMAKURA, SILVIA E;Silvia Shimakura

Lattes iD

http://lattes.cnpq.br/4949546028857946

Orcid iD

? https://orcid.org/0000-0002-5468-2516

Nationality

Brazil

Address

Professional Address

Federal University of Paraná, Exact Sciences Division, Department of Statistics.
Polytechnic Center
Jardim das Américas
81531-990 - Curitiba, PR - Brazil – Mailbox: 19081
Telephone: (41) 3361-3254
Homepage URL: http://www.leg.ufpr.br/~silvia

Formal Education/Degree

1997 - 2003

Ph.D. in Statistics.
Lancaster University, LANCS, England. ,
Year of degree: 2003.
Advisor: Robin Henderson.
Scholarship holder of: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.
Keywords: multivariate gamma; spatial statistics;

leukaemia; Markov Chain Monte Carlo; time-varying recurrent events; composite likelihood.
Major Area: Exact and Earth Sciences
Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Applied Probability and Statistics / Specialty: Spatial Statistics.
Activity sectors: Human health, Products and services on defense and protection of the environment, including the sustained development; Manufacture of Pharmaceutical Products.

1991 - 1994

Master in Estatística.
State Universidade of Campinas, UNICAMP, Brazil.
Year of degree: 1994.
Advisor: Cicilia Yuko Wada.
Scholarship holder of: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.
Keywords: Sarkar's Bivariate Exponential; Bivariate Weibull; Reliability; Accelerated Tests; Competing Risks.
Major Area: Exact and Earth Sciences
Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Applied Probability and Statistics / Specialty: Reliability.
Activity sectors: Human health, Electro-electronic industry; Quality and Productivity.

1987 - 1990

Graduation in Statistics.
Júlio de Mesquita Filho São Paulo State University, UNESP, Brazil.
Scholarship holder of: National Council for Scientific and Technological Development, CNPq, Brazil.

Complementary Education

2011 - 2011

Competing risks and multi-state models. (Credit hours: 32h).
Oswaldo Cruz Foundation, FIOCRUZ, Brazil.

2009 - 2009

STATISTICAL METHODS INTEGRATING C AND R. (Credit hours: 9h).
Federal University of Paraná, UFPR, Brazil.

2008 - 2008

Continuing education in Modelos Estatísticos em Ecologia. (Credit hours: 16h).
Federal University of Paraná, UFPR, Brazil.

2008 - 2008

AN INTRODUCTION TO STRUCTURAL EQUATION MODELING. (Credit hours: 20h).
Oswaldo Cruz Foundation, FIOCRUZ, Brazil.

2007 - 2007

Effective statistical modelling with R. (Credit hours: 8h).
Federal University of Paraná, UFPR, Brazil.

2007 - 2007

Statistics in Genetics and Genomics. (Credit hours: 8h).
Federal University of Paraná, UFPR, Brazil.

Professional Experience

Federal University of Paraná, UFPR, Brazil.

Contract

1993 - Present

Type of contract: Government Employee, Functional Placement: Associate, Credit Hours: 40, Regime: Exclusive Dedication.

Activities

03/2015 - Present

Teaching, GRADUATE PROGRAM IN PUBLIC HEALTH, Degree: Pos-Graduation

Disciplines Taught
SCOL7000-Biostatistics
SCOL7016-Thesis Seminar II
SS705-Thesis Seminar IV
SS714-Biostatistics
SS715-Thesis Seminar I
SS717-Thesis Seminar III
SS718-Thesis Seminar II

1/2002 - Present

Research and Development, Exact Sciences Division, Department of Statistics.

Research Fields
Survival Analysis
Environmental Epidemiology
Epidemiology

3/1993 - Present

Teaching, Bachelor's Degree in Statistics, Degree: Graduation

Disciplines Taught
Descriptive and Exploratory Statistics
Analysis of Discrete Data
Biostatistics
Computational Statistics

Statistical Inference
Statistics Laboratory

01/2023 - 01/2025

Manager and Administrative Positions, Coordination of the Bachelor's Degree in Statistics and Data Science.

Position or Function
Vice-Coordinator.

04/2012 - 02/2015

Other Technical-Scientific Activities, Coordination of the Bachelor's Degree in Statistics, Coordination of the Bachelor's Degree in Statistics.

Accomplished Activity
Tutor of PET-Statistics.

09/2006 - 08/2008

Manager and Administrative Positions, Coordination of the Bachelor's Degree in Statistics.

Position or Function
Vice Program Coordinator.

10/2006 - 12/2007

Trainee Activities, Coordination of the Bachelor's Degree in Statistics.

Trainee Activities
Supervision of non-mandatory internship at CENEP (Center for Neuropediatrics).

10/2006 - 12/2007

Specialized Technical Services, Department of Infectious Diseases.

Jobs Accomplished
Statistical consulting for master's thesis (Banquesq 2005 018327).

1/2004 - 12/2005

Teaching, Physical Education, Degree: Pos-Graduation

Disciplines Taught
CE701-Advanced Biostatistics

9/2002 - 11/2002

Training, Exact Sciences Division, Department of Statistics.

Training
Survival Analysis - Module I
Survival Analysis - Module II

7/1994 - 12/1996

Research and Development, Exact Sciences Division, Department of Statistics.

Research Fields
Statistical methods applied to health

Oswaldo Cruz Foundation, FIOCRUZ, Brazil.

Contract

2002 - 2002

Type of contract: Visiting Professor, Functional Placement: Visiting Researcher, Credit Hours: 20

Activities

11/2003 - 11/2003

Training, National School of Public Health.

Training
Survival Analysis

Lancaster University, LANCS, Great Britain.

Contract

2006 - 2006

Type of contract: Visiting Professor, Functional Placement: Visiting Professor, Credit Hours: 20

Contract

2002 - 2006

Type of contract: Colaborator, Functional Placement: Adjunct Professor

Activities

01/2006 - 03/2006

Teaching, Medical Statistics, Degree: Pos-Graduation

Disciplines Taught
Survival and Event History Analysis
Environmental Epidemiology

07/2004 - 09/2004

Teaching, Medical Statistics, Degree: Pos-Graduation

Disciplines Taught
Thesis Advising

07/2002 - 09/2002

Teaching, Medical Statistics, Degree: Pos-Graduation

Disciplines Taught
Thesis Advising

University of Lisboa, UL, Portugal

Contract

2006 - 2006

Type of contract: Visiting Professor, Functional Placement: Visiting Professor, Credit Hours: 8

Activities

03/2006 - 03/2006

Training, School of Sciences.

Training
Survival and Event History Analysis

Research line

1.

Survival Analysis

2.

Environmental Epidemiology

3.

Epidemiology

Objective: Epidemiology as a science in the development of knowledge about the health-disease process. Measures of disease frequency. Health indicators. Epidemiological surveillance. Health information systems of epidemiological interest. Community health diagnosis. Epidemiological study designs. Measures of association and measures of impact. Evaluation of the effectiveness of prophylactic and therapeutic measures. Validity and interpretation of epidemiological studies. Causality in health. Epidemiology and health services. Critical reading of scientific articles that use the epidemiological method. Systematic review and meta-analysis. Analysis of the determinants and occurrence of the health-disease process in populations and the adequacy of health service interventions, based on different epidemiological research designs.
Major Area: Health Sciences
Activity sectors: Human health care activities.
Keywords: Causality; Surveillance; Health indicators.

4.

Statistical methods applied to health

Research projects

2025 - Current

Transdisciplinary approach to dengue fever from a One Health perspective.

Description: Dengue poses a significant public health challenge in tropical and subtropical regions, requiring amultidisciplinary approach integrating different knowledge and practice areas. Core competencies in teamworkand interdisciplinary cooperation are fundamental for an effective network to prevent and control dengue. Wepropose surveying professionals across various fields - education, sanitation, biology, environmental,healthcare, and more to identify these competencies and promote knowledge-sharing for better strategies.This project also aims to analyze the gap between desired outcomes and actual outcomes in denguecontrol, compare practices across countries, and improve professional skills in prevention, diagnosis, andtreatment under the One Health approach..
Situation: In progress; Nature: Research.

Members: Silvia Emiko Shimakura - Member / Yanna Dantas Rattmann - Member / Sonia Mara Raboni - Coordinator / Denise Siqueira de Carvalho - Member / Karin Regina Luhm - Member / Marilene da Cruz Magalhães Buffon - Member / Magda Clara Vieira da Costa-Ribeiro - Member / TAINA RIBAS MÉLO - Member / LUCIANA SALINI ABRAHÃO PIRES - Member / GUSTAVO ARAÚJO DE ALMEIDA - Member / TATIANA QUEIRÓZ RIBEIRO ALMEIDA - Member / VERONICA ENCINA - Member / ÁNGELA FERNANDA ESPINOSA ARANZALES - Member / LAUR[illegible]ANDREA RODRIGUEZ -

Member / LEONARDO BRICENO - Member / JUAN CARLOS VELASQUEZ - Member / MARIA TERESA SOLLIS SOTO - Member / CARLOS VASQUEZ - Member / ANDREAS A. KUDOM - Member / FRANCESCO NICOLI - Member.

Financier(s): Ludwig-Maximilians University - Center for International Health - Grant.

2023 - Current

Systematic Review and Meta-Analysis of mental health and underdiagnosis of autism spectrum disorder in women.

Description: Autism Spectrum Disorder is a neurodevelopmental condition characterized by difficulty in social interaction and repetitive patterns of behavior. In cases in which behavioral patterns are milder, there is a higher incidence of late diagnoses and underdiagnosis. With the aim of analyzing the factors associated with underdiagnosis and late diagnosis of Autism Spectrum Disorder (ASD) in women and the impact of diagnosis, or its absence, on their mental health, a systematic review of the available literature will be conducted, followed by a descriptive analysis and a meta-analysis of the results found..
Situation: In progress; Nature: Research.
Participant students: Graduation: (3) / Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Nicole Sofia Herman Marques - Member / Fernanda Cristina Quint - Member / FABIO AUGUSTO OLIVEIRA DE VASCONCELOS - Member / MATEUS FERNANDES DE SOUZA - Member.
Financier(s): UFPR Foundation for the Development of Science, Technology and Culture - Scholarship / Araucária Foundation for the Support of Scientific and Technological Development - Other.
S, T & A Production Rate: 3 / Number of guidelines: 1

2023 - Current

Analysis of the profile and perceptions of women in labor who had newborns diagnosed with congenital syphilis

Description: Descriptive, cross-sectional epidemiological study with a quantitative-qualitative approach, applied in nature, with exploratory objectives and technical procedures consistent with a case study, aiming to understand the reasons that lead to loss of follow-up of adequate treatment in pregnant women with syphilis, in order to prevent vertical transmission of syphilis..
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) / Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Marcos Claudio Signorelli - Member / Juliane Christina Gaioski - Member / BEATRIZ GOMES DE OLIVEIRA - Member.
Financier(s): UFPR - Scholarship.
S, T & A Production Rate: 5

2023 - Current

SPATIOTEMPORAL ANALYSIS OF CONGENITAL ANOMALIES PRIORITIZED FOR LIVE BIRTH SURVEILLANCE IN THE STATE OF PARANÁ

Description: In this project, the objective is to estimate the spatial and temporal distribution of the risk of priority congenital anomalies in the municipalities of the State of Paraná in order to identify priority areas for planning health promotion and comprehensive health care actions, as well as to support the formulation of public policies aimed at maternal and child health..
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) / Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Fernanda de Oliveira Biaggio Correa - Member.

S, T & A Production Rate: 1 / Number of guidelines: 1

2021 - Current

Effectiveness of COVID-19 vaccines in people living with HIV and in the population eligible for vaccination in a municipality in Southern Brazil.

Description: COVID-19 affected millions of people and placed an unprecedented burden on health systems, negatively impacting people's health and lifestyles, in addition to destabilizing the global economy. The lack of a definitive therapy for the treatment of COVID-19 triggered a frantic global effort to develop vaccines. Traditionally, vaccine studies take between 10 and 15 years; however, given the public health emergency, emergency use authorization was implemented, allowing the experimental use of COVID-19 vaccines. Brazil began its vaccination campaign in January 2020 with vaccines from the laboratories Sinovac/Butantan (CoronaVac) and AstraZeneca/Oxford (ChAdOx1), later incorporating the Pfizer (BNT162b2) and Janssen (Ad26.COV2.S) vaccines. With four immunizers in use, vaccine effectiveness needs to be evaluated to verify whether, in a population outside the controlled research setting and exposed to new SARS-CoV-2 variants of concern, the immunizers are able to maintain their protective characteristics, making it important to understand their impact in different regions and specific groups. Due to the higher likelihood of people living with HIV (PLHIV) being immunosuppressed, with the possibility of worse outcomes during COVID-19, it is important to assess vaccine effectiveness for this group. Two types of studies will be conducted. Using an ambispective population-based cohort study, vaccine effectiveness will be evaluated in PLHIV aged 18 to 59 years, residing in the municipality of Curitiba, Paraná, Brazil, from March 20, 2020 to January 20, 2022. To verify the existence of a negative association between incidence and mortality and the temporal progression of vaccination coverage in the municipality, an ecological time-series study of COVID-19 incidence and mortality rates will be conducted over the period from March 20, 2020 to January 20, 2022,

in the resident population of Curitiba. Through effectiveness studies, it will be possible to evaluate the impact of vaccination strategies both in the general population and in specific groups, considering the local context..
Situation: In progress; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Karin Regina Luhm - Member / Ana Valéria de Almeida Carli - Member / Matheus Willian Krik - Member / Djiuliany Larissa de Souza Siqueira - Member.

S, T & A Production Rate: 3

2020 - 2021

DENGUE VACCINE IN WOMEN OF CHILDBEARING AGE, NON-PREGNANT: A MATERNAL-FETAL PROTECTION STRATEGY FOR FUTURE PREGNANCIES

Description: Dengue is an arboviral disease caused by a flavivirus and transmitted by the mosquito Aedes aegypti. It is a disease with wide global distribution, endemic in more than 100 countries and causing approximately 390 million infections annually, only a quarter of which are symptomatic. It has the potential to develop into severe forms, especially in regions where more than one viral subtype circulates. The impact of pregnancy on the course of this infection, and the impact of dengue infection on obstetric outcomes, have been investigated by several authors since the 1990s, but some points remain undefined. Currently, dengue has no specific antiviral treatment, and control policies focus on behavioral change. The existence of a vaccine that prevents dengue infection revolutionizes this scenario. The only vaccine approved for commercialization is DengVaxia®. This case-control study seeks to evaluate the relationship between dengue infection and pregnancy, as well as the effectiveness of this vaccine administered to women of childbearing age in relation to obstetric outcomes in pregnant women with laboratory-confirmed dengue infection who had previously received the DengVaxia® vaccine..
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Denise Siqueira de Carvalho - Member / Beatris Mario Martin - Member.

S, T & A Production Rate: 2

2019 - 2021

Statistical methods for the analysis of interrupted time series

Description: Statistical models used for the analysis of longitudinal studies and time series, and for the evaluation of the impact of interventions, were studied and applied to health data..
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Silvia E

 Shimakura - Coordinator /

future in which informed decision-making will be increasingly valued. The course aims to introduce high school students to the R programming language, developing skills in programming, data analysis, and visualization. Students will apply mathematical and statistical concepts in a practical and accessible way, empowering them to interpret data and make informed decisions..
Situation: In progress; Nature: Teaching.
Participant students: Graduation: (18) .

Members: Silvia Emiko Shimakura - Coordinator / Wagner Hugo Bonat - Member / Fernanda Buhrer Rizzato - Member.

S, T & A Production Rate: 1

2020 - 2022

Basic Statistics

Project certified by the coordinator Paulo Justiniano Ribeiro Junio on 09/13/2024.

Description: Development of materials for remote teaching of Basic Statistics..
Situation: Completed; Nature: Teaching.

Members: Silvia Emiko Shimakura - Member / Paulo Justiniano Ribeiro Jr - Coordinator / Nivea da Silva Matuda - Member / Walmes Marques Zeviani - Member / Wagner Hugo Bonat - Member / Fernando de Pol Mayer - Member / Fernanda Buhrer Rizzato - Member / Eliane Maria Wilbert Winter - Member.

Development projects

2003 - 2009

SAUDAVEL

Description: Unified Support System for Detection and Monitoring in Epidemiological Surveillance.
Situation: Completed; Nature: Development.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Silvia Emiko Shimakura - Member / Antonio Miguel Vieira Monteiro - Coordinator / Carlos Alberto Felgueiras - Member / Eduardo Celso G Camargo - Member / Gilberto Camara - Member / Hilcea Santos Ferreira - Member / Janete da Cunha - Member / Juan Carlos Pinto de Garrido - Member / Jussara de Oliveira Ortiz - Member / Karine Reis Ferreira - Member / Lauro Tsutoru Hara - Member / Lubia Vinhas - Member / Regina Bruno - Member / Ricardo Cartaxo - Member / Simone Bonish - Member / Virginia Ragoni - Member / Andre Avila da Cunha Santos - Member / Daniela de Miranda Souza - Member / Marcelo Azevedo Costa - Member / Andrea Iabrudi Tavares - Member / Marcos Antonio da Cunha Santos - Member / Mônica Silva Monteiro de Castro - Member / Renato Martins Assunção - Member / Clodoveu Davis - Member / Karla A. de Vasconcelos Borges - Member / Maria da

Piedade G. de Oliveira - Member / Eduardo Sant'Ana da Silva - Member / Paulo Justiniano Ribeiro Jr. - Member / Marilia Sá Carvalho - Member / Reinaldo Souza dos Santos - Member / Wagner Tassirini - Member / André Freire Furtado - Member / José Constantino Jr. - Member / José Luis Portugal - Member / Lêda Narcisa Régis - Member / Maria Alice V. de M. Santos - Member / Maria Cinthya Braga - Member / Maria de Fátima P. M. Albuquerque - Member / Tiago Maria Lapa - Member / Wayner Vieira de Souza - Member / Christóvam de Castro Barcellos - Member / Maria de Fátima R. P. de Pina - Member.
Financier(s): National Council for Scientific and Technological Development - Grant / Belo Horizonte Municipal Information and Informatics Company - Cooperation / Oswaldo Cruz Foundation - Cooperation / National Institute for Space Research - Cooperation / Federal University of Minas Gerais - Cooperation.

2002 - 2005

Methodological development in longitudinal data analysis

Description: PAPES III-FIOCRUZ STRATEGIC HEALTH RESEARCH SUPPORT PROGRAM.
Situation: Completed; Nature: Development.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Silvia Emiko Shimakura - Member / Tereza Serrano - Member / Cláudia Torres Codeco - Member / Iuri Leite - Member / Cláudio Struchiner - Member / Angela Maria Jourdan Gadelha - Member / Dayse Pereira Campos - Member / Marilia Sá Carvalho - Coordinator.
Financier(s): Oswaldo Cruz Foundation - Grant / Federal University of the State of Rio de Janeiro - Cooperation.
S, T & A Production Rate: 11

Other Projects

2012 - 2015

TUTORING OF THE PET STATISTICS PROGRAM UFPR

Description: Tutoring of the PET Statistics group at UFPR.
Situation: Completed; Nature: Other.
Participant students: Graduation: (6) .

Members: Silvia Emiko Shimakura - Coordinator / Paulo Justiniano Ribeiro Jr - Member / Walmes Marques Zeviani - Member.

S, T & A Production Rate: 11

Scientific journal referee

2005 - Present

Journal: Reports in Public Health (FIOCRUZ)

2006 - 2006

Journal: Simulation Modelling Practice and Theory

2001 - Present

Journal: Biostatistics (Oxford)

2006 - Present

Journal: Brazilian Journal of Statistics

2009 - Present

Journal: Statistics In Medicine

2010 - Present

Journal: Brazilian Journal of Epidemiology

2010 - Present

Journal: Lifetime Data Analysis

2009 - 2009

Journal: Bulletin of Geodetic Sciences

2011 - Present

Journal: Brazilian Journal of Probability and Statistics

2011 - Present

Journal: BMC Public Health (Online)

2009 - Present

Journal: Statistics in Medicine (Print)

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Applied Probability and Statistics / Specialty: Survival Analysis.

2.

Major Area: Health Sciences / Area: Collective Health / Subarea: Epidemiology / Specialty: Environmental Epidemiology.

Languages

English

Comprehends Well, Speaks Well, Reads Well, Writes Well.

Spanish

Comprehends Well, Speaks Little, Reads Well, Writes Little.

Awards and Titles

2024

Academic Excellence Award in Graduate Studies – 2024, Vice-President's Office for Graduate Studies at the Federal University of Paraná.

2010

Alfredo Reis Viegas Award – 1st Place, Regional Council of Dentistry of São Paulo.

1996

Best Master's Thesis Award, Brazilian Statistical Association.

Scientific, Technological, Artistic and Cultural Production

Bibliographical Production

Citations

Web of Science

Total of articles: 4 Total of citations: 45 Date: 07/15/2010

Shimakura, S

SciELO

Total of articles: 2 Total of citations: 11 Date: 07/15/2010

Shimakura

SCOPUS

Total of articles: 5 Total of citations: 76 Date: 09/06/2011

Shimakura, S

Full articles published in journals

Sort by

Chronological Order

1.

I, Raphael Michels Fantinato de Moura, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: February 20, 2026.



Silvia Emiko Shimakura

Address to access this CV: http://lattes.cnpq.br/4949546028857946
ID Lattes: **4949546028857946**
Last updated: 04/04/2025

Bachelor in Statístics at Paulista State University (1990), MSc in Statistics at Campinas State University (1994) and PhD in Statistics at Lancaster University, UK (2003). Professor at Federal Paraná University, Brazil, with experience in Medical Statistics, especially in the following topics: survival analysis, spatial statistics, environmental epidemiology and multi-state models. Since 2015 is a permanent member of the Public Health Postgraduate Programme. **(Text informed by the author)**

Personal Information

Name

Silvia Emiko Shimakura

Bibliographic Citation

SHIMAKURA, S.;Shimakura, Silvia;Shimakura, Silvia Emiko;Shimakura, S. E.;EMIKO SHIMAKURA, SILVIA;SHIMAKURA, SILVIA E;Silvia Shimakura

Lattes iD

http://lattes.cnpq.br/4949546028857946

Orcid iD

? https://orcid.org/0000-0002-5468-2516

Nationality

Brasil

Address

Professional Address

Universidade Federal do Paraná, Setor de Ciências Exatas, Departamento de Estatística.
Centro Politécnico
Jardim das Américas
81531-990 - Curitiba, PR - Brasil - Mailbox: 19081
Telephone: (41) 33613254
Homepage URL: http://www.leg.ufpr.br/~silvia

Formal Education/Degree

1997 - 2003

Ph.D. in Estatística.
Universidade de Lancaster, LANCS, Inglaterra. ,
Year of degree: 2003.
Advisor: Robin Henderson.
Scholarship holder of: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.
Keywords: multivariate gamma; spatial statistics;

leukaemia; Markov Chain Monte Carlo; time-varying recurrent events; composite likelihood.
Major Area: Exact and Earth Sciences
Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Probabilidade e Estatística Aplicadas / Specialty: Estatística Espacial.
Activity sectors: Human health; Products and services on defense and protection of the environment, including the sustained development; Manufacture of Pharmaceutical Products .

1991 - 1994

Master in Estatística.
Universidade Estadual de Campinas, UNICAMP, Brasil. Year of degree: 1994.
Advisor: Cicilia Yuko Wada.
Scholarship holder of: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.
Keywords: Exponencial bivariada de Sarkar; Weibull bivariada; Confiabilidade; Testes acelerados; Riscos competitivos.
Major Area: Exact and Earth Sciences
Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Probabilidade e Estatística Aplicadas / Specialty: Confiabilidade.
Activity sectors: Human health; Electro-electronic industry; Quality and Productivity.

1987 - 1990

Graduation in Estatística.
Universidade Estadual Paulista Júlio de Mesquita Filho, UNESP, Brasil.
Scholarship holder of: Conselho Nacional de Desenvolvimento Científico e Tecnológico, CNPq, Brasil.

Complementary Education

2011 - 2011

Competing risks and multi-state models. (Credit hours: 32h).
Fundação Oswaldo Cruz, FIOCRUZ, Brasil.

2009 - 2009

MÉTODOS ESTATÍSTICOS INTEGRANDO C E R. (Credit hours: 9h).
Universidade Federal do Paraná, UFPR, Brasil.

2008 - 2008

Continuing education in Modelos Estatísticos em Ecologia. (Credit hours: 16h).
Universidade Federal do Paraná, UFPR, Brasil.

2008 - 2008

AN INTRODUCTION TO STRUCTURAL EQUATION MODELING. (Credit hours: 20h).
Fundação Oswaldo Cruz, FIOCRUZ, Brasil.

2007 - 2007

Effective statistical modelling with R. (Credit hours: 8h).
Universidade Federal do Paraná, UFPR, Brasil.

2007 - 2007

Estatística na genética e genômica. (Credit hours: 8h).
Universidade Federal do Paraná, UFPR, Brasil.

Professional Experience

Universidade Federal do Paraná, UFPR, Brasil.

Contract

1993 - Present

Type of contract: Government Employee, Functional Placement: Associado, Credit Hours: 40, Regime: Exclusive Dedication.

Activities

03/2015 - Atual

Teaching, PROGRAMA DE PÓS-GRADUAÇÃO EM SAÚDE COLETIVA, Degree: Pos-Graduation

Disciplines Taught
SCOL7000-Bioestatística
SCOL7016-Seminario de Dissertacao II
SS705-Seminario de Dissertacao IV
SS714-Bioestatística
SS715-Seminario de Dissertacao I
SS717-Seminario de Dissertacao III
SS718-Seminario de Dissertacao II

1/2002 - Atual

Research and Development, Setor de Ciências Exatas, Departamento de Estatística.

Research Fields
Análise de Sobrevivência
Epidemiologia Ambiental
Epidemiologia

3/1993 - Atual

Teaching, Bacharelado Em Estatística, Degree: Graduation

Disciplines Taught
Estatística Descritiva e Exploratória
Analise de dados discretos
Bioestatistica
Estatistica Computacional

Inferencia Estatistica
Laboratorio de Estatistica

01/2023 - 01/2025

Manager and Administrative Positions, Coordenação do Bacharelado em Estatística e Ciência da Dados.

Position or Function
Vice-coordenadora.

04/2012 - 02/2015

Other Technical-Scientific Activities , Coordenação do Bacharelado em Estatística, Coordenação do Bacharelado em Estatística.

Accomplished Activity
Tutora do PET-Estatística.

09/2006 - 08/2008

Manager and Administrative Positions, Coordenação do Bacharelado em Estatística.

Position or Function
Vice-coordenador de curso.

10/2006 - 12/2007

Trainee Activities , Coordenação do Bacharelado em Estatística.

Trainee Activities
Orientação de estágio não-obrigatório no CENEP (Centro de Neuropediatria).

10/2006 - 12/2007

Specialized technical services , Departamento de Infectologia.

Jobs Accomplished
Assessoria estatística para dissertação de mestrado (Banquesq 2005 018327).

1/2004 - 12/2005

Teaching, Educacao Fisica, Degree: Pos-Graduation

Disciplines Taught
CE701-Bioestatistica Avançada

9/2002 - 11/2002

Training , Setor de Ciências Exatas, Departamento de Estatística.

Training
análise de sobrevivência - modulo I
análise de sobrevivência - modulo II

7/1994 - 12/1996

Research and Development, Setor de Ciências Exatas, Departamento de Estatística.

Research Fields
Métodos estatísticos aplicados em saúde

Fundação Oswaldo Cruz, FIOCRUZ, Brasil.

Contract

2002 - 2002

Type of contract: Visiting Professor, Functional Placement: Pesquisador visitante, Credit Hours: 20

Activities

11/2003 - 11/2003

Training , Escola Nacional de Saude Publica.

Training
Analise de Sobrevivencia

Universidade de Lancaster, LANCS, Grã-Bretanha.

Contract

2006 - 2006

Type of contract: Visiting Professor, Functional Placement: Professor visitante, Credit Hours: 20

Contract

2002 - 2006

Type of contract: Colaborator, Functional Placement: Professor colaborador

Activities

01/2006 - 03/2006

Teaching, Estatística Médica, Degree: Pos-Graduation

Disciplines Taught
Survival and Event History Analysis
Environmental Epidemiology

07/2004 - 09/2004

Teaching, Estatística Médica, Degree: Pos-Graduation

Disciplines Taught
orientacao de dissertacao

07/2002 - 09/2002

Teaching, Estatística Médica, Degree: Pos-Graduation

Disciplines Taught
orientacao de dissertacao

Universidade de Lisboa, UL, Portugal.

Contract

2006 - 2006

Type of contract: Visiting Professor, Functional Placement: Professor visitante, Credit Hours: 8

Activities

03/2006 - 03/2006

Training , Faculdade de Ciencias.

Training
Survival and Event History Analysis

Research line

1.

Análise de Sobrevivência

2.

Epidemiologia Ambiental

3.

Epidemiologia

Objective: Epidemiologia como ciência no desenvolvimento do conhecimento sobre o processo saúde-doença. Medidas de frequência das doenças. Indicadores de saúde. Vigilância epidemiológica. Sistemas de informação de saúde de interesse epidemiológico. Diagnóstico de saúde da comunidade. Delineamentos de estudos epidemiológicos. Medidas de associação e medidas de impacto. Avaliação da eficácia de medidas profiláticas e terapêuticas. Validade e interpretação de estudos epidemiológicos. Causalidade em saúde. Epidemiologia e serviços de saúde. Leitura crítica de artigos científicos que usam o método epidemiológico. Revisão sistemática e metanálise. Análise da determinação e ocorrência do processo saúde-doença na população e da adequação das intervenções dos serviços de saúde, com base nos diferentes delineamentos de pesquisa epidemiológica..
Major Area: Health Sciences
Activity sectors: Atividades de atenção à saúde humana.
Keywords: causalidade; Vigilância; Indicadores de saúde.

4.

Métodos estatísticos aplicados em saúde

Research projects

2025 - Current

Transdisciplinary approach to dengue fever from a One Health perspective.

Description: Dengue poses a significant public health challenge in tropical and subtropical regions, requiring amultidisciplinary approach integrating different knowledge and practice areas. Core competencies in teamworkand interdisciplinary cooperation are fundamental for an effective network to prevent and control dengue. Wepropose surveying professionals across various fields - education, sanitation, biology, environmental,healthcare, and more to identify these competencies and promote knowledge-sharing for better strategies.This project also aims to analyze the gap between desired outcomes and actual outcomes in denguecontrol, compare practices across countries, and improve professional skills in prevention, diagnosis, andtreatment under the One Health approach..
Situation: In progress; Nature: Research.

Members: Silvia Emiko Shimakura - Member / Yanna Dantas Rattmann - Member / Sonia Mara Raboni - Coordinator / Denise Siqueira de Carvalho - Member / Karin Regina Luhm - Member / Marilene da Cruz Magalhães Buffon - Member / Magda Clara Vieira da Costa-Ribeiro - Member / TAINA RIBAS MÉLO - Member / LUCIANA SALINI ABRAHÃO PIRES - Member / GUSTAVO ARAÚJO DE ALMEIDA - Member / TATIANA QUEIRÓZ RIBEIRO ALMEIDA - Member / VERONICA ENCINA - Member / ÁNGELA FERNANDA ESPINOSA ARANZALES - Member / LAURA ANDREA RODRIGUEZ -

Member / LEONARDO BRICENO - Member / JUAN CARLOS VELASQUEZ - Member / MARIA TERESA SOLLIS SOTO - Member / CARLOS VASQUEZ - Member / ANDREAS A. KUDOM - Member / FRANCESCO NICOLI - Member.
Financier(s): Universidade Ludwig-Maximilians - Center for International Health - Grant.

2023 - Current

Revisão Sistemática e Meta-análise da saúde mental e subdiagnóstico do transtorno do espectro autista em mulheres.

Description: O Transtorno do Espectro Autista é uma alteração no neurodesenvolvimentocaracterizada por dificuldade do indivíduo interagir socialmente e padrões repetitivos. Paracasos cujo os padrões comportamentais são amenos, há uma incidência de diagnósticos tar-dios e sub-diagnósticos. Com o intuito de analisar os fatores associados ao sub-diagnósticoe diagnóstico tardio do Transtorno do Espectro Autista (TEA) em mulheres e o impactodo diagnóstico, ou ausência do mesmo, na saúde mental das mesmas. Será realizadauma revisão sistemática da literatura disponível e uma análise descritiva seguida de umameta-análise dos resultados encontrados..
Situation: In progress; Nature: Research.
Participant students: Graduation: (3) / Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Nicole Sofia Herman Marques - Member / Fernanda Cristina Quint - Member / FABIO AUGUSTO OLIVEIRA DE VASCONCELOS - Member / MATEUS FERNANDES DE SOUZA - Member.
Financier(s): Fundação da UFPR para o Desenvolvimento da Ciência, Tecnologia e Cultura - Scholarship / Fundação Araucária de Apoio ao Desenvolvimento Científico e Tecnológico - Other.
S, T & A Production Rate: 3 / Number of guidelines: 1

2023 - Current

Análise do perfil e das percepções de parturientes que tiveram recém-natos com diagnóstico de sífilis congênita

Description: Estudo epidemiológico descritivo, transversal de abordagem quanti-qualitativa, de natureza aplicada, de objetivos exploratórios e procedimentos técnicos que se identificam com um estudo de caso com objetivo de compreender os motivos que levam à perda do seguimento do tratamento adequado em gestantes com sífilis, a fim da prevenção da transmissão vertical da sífilis..
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) / Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Marcos Claudio Signorelli - Member / Juliane Christina Gaioski - Member / BEATRIZ GOMES DE OLIVEIRA - Member.
Financier(s): UFPR - Scholarship.
S, T & A Production Rate: 5

2023 - Current

ANÁLISE ESPAÇO TEMPORAL DAS ANOMALIAS CONGÊNITAS PRIORITÁRIAS PARA VIGILÂNCIA DE NASCIDOS VIVOS NO ESTADO DO PARANÁ

Description: Neste projeto o objetivo é estimar a distribuição espacial e temporal do risco de anomalias congênitas prioritárias nos municípios do Estado do Paraná para identificar áreas de prioridade para planejamento de ações de promoção e de atenção integral a saúde, além de subsidiar a formulação de políticas públicas voltadas para a saúde materno infantil..
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) / Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Fernanda de Oliveira Biaggio Correa - Member.

S, T & A Production Rate: 1 / Number of guidelines: 1

2021 - Current

Efetividade das vacinas contra a covid-19 em pessoas vivendo com HIV e da população elegível para vacinação em um município do sul do Brasil.

Description: A covid-19 afetou milhões de pessoas e sobrecarregou de maneira incomparável os sistemas de saúde, refletiu negativamente na saúde e estilo de vida das pessoas, além de desestabilizar a economia no mundo. A falta de uma terapia decisiva para o tratamento da covid-19, gerou uma busca frenética para o desenvolvimento de vacinas no mundo. Tradicionalmente os estudos de uma vacina demoram entre 10 e 15 anos, porém diante da emergência em saúde pública, foi utilizada a autorização de uso emergencial, que permitiu o uso em caráter experimental de vacinas contra a covid-19. O Brasil iniciou sua campanha de vacinação em janeiro de 2020, com as vacinas dos laboratórios Sinovac/Butantan (Coronavac) e AstraZeneca/Oxford (ChAdOx1), incorporando mais tarde os imunizantes da Pfizer (BNT162b2) e da Janssen (Ad26.COV2.S). Com quatro imunizantes em uso a efetividade das vacinas precisa ser avaliada, verificando se em uma população fora do ambiente controlado de pesquisa, e exposta às novas variantes de preocupação do SARS-CoV-2, os imunizantes conseguem manter suas características de proteção, sendo importante conhecer o impacto em diferentes regiões e em grupos específicos. Devido a maior probabilidade de pessoas vivendo com HIV (PVHIV) serem imunossuprimidas, com possibilidade de pior evolução na vigência de um quadro de covid-19, torna-se importante conhecer a efetividade da vacina para este grupo. Serão realizados dois tipos de estudo. Utilizando um estudo de coorte ambispectivo, de base populacional, será avaliada a efetividade das vacinas em PVHIV, na faixa etária de 18 a 59 anos, residentes no município de Curitiba, Paraná, Brasil, no período de 20 de março de 2020 a 20 de janeiro de 2022. Para verificar a existência de uma associação negativa entre a incidência e mortalidade e o avanço temporal da cobertura vacinal no município será realizado um estudo ecológico de séries temporais das taxas de incidência e de mortalidade pela covid-19, ao longo do período de 20 de março de 2020 a 20 de janeiro de 2022,

na população residente de Curitiba. Com estudos de efetividade será possível avaliar o impacto das estratégias de vacinação tanto na população geral como em grupos específicos, considerando o contexto local..
Situation: In progress; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Karin Regina Luhm - Member / Ana Valéria de Almeida Carli - Member / Matheus Willian Krik - Member / Djiuliany Larissa de Souza Siqueira - Member.

S, T & A Production Rate: 3

2020 - 2021

VACINA DA DENGUE EM MULHERES EM IDADE FÉRTIL, NÃO GESTANTES: UMA ESTRATÉGIA DE PROTEÇÃO MATERNO-FETAL EM GESTAÇÕES FUTURAS

Description: Dengue é uma arbovirose causada por flavivírus e transmitida por um mosquito Aedes aegypt. É uma doença de ampla distribuição mundial, endêmica em mais de 100 países e causando anualmente 390 milhoes de infecções, apenas um quarto delas sintomáticas. Apresenta potencial para desenvolvimento de formas graves, principalmente nas regiões em que circulam mais de um subtipo viral. O impacto da gestação na evolução desta infecção, e o impacto da infecção por dengue nos desfechos obstétricos foram investigados por diversos autores desde a década de 90, mas alguns pontos permanecem sem definição. Atualmente, a dengue não apresenta tratamento virológico específico, e o foco das políticas de controle se dá nas mudança comportamental. A existencia de uma vacina que previna a infecção de dengue revoluciona este cenário. A única vacina liberada para comercialização é a DengVaxia®. Este estudo de caso controle busca avaliar a relação entre a infecção por dengue e gestação, assim como a efetividade desta vacina realizada em mulheres em idade fértil em relação aos desfechos obstétricos em gestantes com infecção comprovada por dengue e que tenham recebido previamente a vacina DengVaxia®..
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Silvia Emiko Shimakura - Coordinator / Denise Siqueira de Carvalho - Member / Beatris Mario Martin - Member.

S, T & A Production Rate: 2

2019 - 2021

Métodos estatísticos para análise de series temporais interrompidas

Description: Modelos estatísticos usados para análise de estudos longitudinais e series temporais e avaliação do impacto de intervenções serão estudados e aplicados a dados da saúde..
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Silvia E[illegible]o Shimakura - Coordinator /

futuro em que a tomada de decisões informadas será cada vez mais valorizada. O curso tem como objetivo introduzir alunos do ensino médio à linguagem de programação R, desenvolvendo habilidades em programação, análise de dados e visualização. Os alunos aplicarão conceitos matemáticos e estatísticos de forma prática e acessível, capacitando-os a interpretar dados e tomar decisões informadas..
Situation: In progress; Nature: Teaching.
Participant students: Graduation: (18) .

Members: Silvia Emiko Shimakura - Coordinator / Wagner Hugo Bonat - Member / Fernanda Buhrer Rizzato - Member.

S, T & A Production Rate: 1

2020 - 2022

Estatística básica

Project certified by the coordinator Paulo Justiniano Ribeiro Junior in 13/09/2024.

Description: Desenvolvimento de material para ensino remoto de Estatística Básica..
Situation: Completed; Nature: Teaching.

Members: Silvia Emiko Shimakura - Member / Paulo Justiniano Ribeiro Jr - Coordinator / Nivea da Silva Matuda - Member / Walmes Marques Zeviani - Member / Wagner Hugo Bonat - Member / Fernando de Pol Mayer - Member / Fernanda Buhrer Rizzato - Member / Eliane Maria Wilbert Winter - Member.

Development projects

2003 - 2009

SAUDAVEL

Description: Sistema de Apoio Unificado para a Deteccao e Acompanhamento em Vigiliancia Epidemiologica.
Situation: Completed; Nature: Development.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Silvia Emiko Shimakura - Member / Antonio Miguel Vieira Monteiro - Coordinator / Carlos Alberto Felgueiras - Member / Eduardo Celso G Camargo - Member / Gilberto Camara - Member / Hilcea Santos Ferreira - Member / Janete da Cunha - Member / Juan Carlos Pinto de Garrido - Member / Jussara de Oliveira Ortiz - Member / Karine Reis Ferreira - Member / Lauro Tsutoru Hara - Member / Lubia Vinhas - Member / Regina Bruno - Member / Ricardo Cartaxo - Member / Simone Bonish - Member / Virginia Ragoni - Member / Andre Avila da Cunha Santos - Member / Daniela de Miranda Souza - Member / Marcelo Azevedo Costa - Member / Andrea Iabrudi Tavares - Member / Marcos Antonio da Cunha Santos - Member / Mônica Silva Monteiro de Castro - Member / Renato Martins Assunção - Member / Clodoveu Davis - Member / Karla A. de Vasconcelos Borges - Member / Maria da

Piedade G. de Oliveira - Member / Eduardo Sant'Ana da Silva - Member / Paulo Justiniano Ribeiro Jr. - Member / Marilia Sá Carvalho - Member / Reinaldo Souza dos Santos - Member / Wagner Tassirini - Member / André Freire Furtado - Member / José Constantino Jr. - Member / José Luis Portugal - Member / Lêda Narcisa Régis - Member / Maria Alice V. de M. Santos - Member / Maria Cinthya Braga - Member / Maria de Fátima P. M. Albuquerque - Member / Tiago Maria Lapa - Member / Wayner Vieira de Souza - Member / Christóvam de Castro Barcellos - Member / Maria de Fátima R. P. de Pina - Member.
Financier(s): Conselho Nacional de Desenvolvimento Científico e Tecnológico - Grant / Empresa de Informática e Informação do Município de Belo Horizonte - Cooperation / Fundação Oswaldo Cruz - Cooperation / Instituto Nacional de Pesquisas Espaciais - Cooperation / Universidade Federal de Minas Gerais - Cooperation.

2002 - 2005

Desenvolvimento metodológico em análise de dados longitudinais

Description: PAPES III-FIOCRUZ PROGRAMA DE APOIO À PESQUISA ESTRATÉGICA EM SAÚDE.
Situation: Completed; Nature: Development.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Silvia Emiko Shimakura - Member / Tereza Serrano - Member / Cláudia Torres Codeco - Member / Iuri Leite - Member / Cláudio Struchiner - Member / Angela Maria Jourdan Gadelha - Member / Dayse Pereira Campos - Member / Marilia Sá Carvalho - Coordinator.
Financier(s): Fundação Oswaldo Cruz - Grant / Universidade Federal do Estado do Rio de Janeiro - Cooperation.
S, T & A Production Rate: 11

Other Projects

2012 - 2015

TUTORIA DO PET ESTATÍSTICA UFPR

Description: Tutoria do grupo pet estatística da UFPR.
Situation: Completed; Nature: Other.
Participant students: Graduation: (6) .

Members: Silvia Emiko Shimakura - Coordinator / Paulo Justiniano Ribeiro Jr - Member / Walmes Marques Zeviani - Member.

S, T & A Production Rate: 11

Scientific journal referee

2005 - Present

Journal: Cadernos de Saúde Pública (FIOCRUZ)

2006 - 2006

Journal: Simulation Modelling Practice and Theory

2001 - Present

Journal: Biostatistics (Oxford)

2006 - Present

Journal: Revista Brasileira de Estatística

2009 - Present

Journal: Statistics In Medicine

2010 - Present

Journal: Revista Brasileira de Epidemiologia

2010 - Present

Journal: Lifetime Data Analysis

2009 - 2009

Journal: Boletim de Ciências Geodésicas

2011 - Present

Journal: Brazilian Journal of Probability and Statistics

2011 - Present

Journal: BMC Public Health (Online)

2009 - Present

Journal: Statistics in Medicine (Print)

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Área: Probability and Statistics / Subarea: Probabilidade e Estatística Aplicadas/Specialty: Análise de Sobrevivência.

2.

Major Area: Health Sciences / Área: Collective Health / Subarea: Epidemiologia/Specialty: Epidemiologia Ambiental.

Languages

English

Comprehends Well, Speaks Well, Reads Well, Writes Well.

Spanish

Comprehends Well, Speaks Little, Reads Well, Writes Little.

Awards and Titles

2024

Prêmio Excelência Acadêmica da Pós-graduação - 2024, Pró-Reitoria de Pós-Graduação da Universidade Federal do Paraná.

2010

Prêmio Alfredo Reis Viegas - 1o. Lugar, Conselho Regional de Odontologia de São Paulo.

1996

Melhor Dissertação de Mestrado, Associação Brasileira de Estatística.

Scientific, Technological, Artistic and Cultural Production

Bibliographical Production

Citations

Web of Science

Total of articles: 4 Total of citations: 45 Date: 15/07/2010

Shimakura, S

SciELO

Total of articles: 2 Total of citations: 11 Date: 15/07/2010

Shimakura

SCOPUS

Total of articles: 5 Total of citations: 76 Date: 06/09/2011

Shimakura, S

Full articles published in journals

Sort by

Chronological Order

1.

August 10, 2025

Email: paulojus@ufpr.br
Telephone: +55 (41) 3361-3573

Dear Officer of the United States Citizenship and Immigration Services (USCIS),

My name is Paulo Justiniano Ribeiro Junior, and I am an Associate Professor in the Department of Statistics at the Federal University of Paraná (UFPR). My academic background includes a Bachelor's degree in Agronomy from the Federal University of Lavras (UFLA), a Master's degree from the University of São Paulo (USP), and a Doctorate Degree in Statistics from Lancaster University (England, 2002), under the supervision of Professor Peter J. Diggle. Since 2003, I have coordinated the Laboratory of Statistics and Geoinformation (LEG), where we conduct research and training in spatial statistics, geostatistics, Bayesian inference, and statistical software development, including the geoR package.

My first contact with Mr. José Evandeilton Lopes dates back to his undergraduate studies at UFPR, when I supervised his Undergraduate Thesis on Simplex Regression models. The technical quality of that work led to our co-authored publication, "Likelihood analysis for a class of simplex models," in the *Chilean Journal of Statistics*. I later served on his master's thesis committee, in which he proposed a model for the analysis of scale data, further developing modeling tools with rare maturity. At academic events such as the Symposium on Numerical Methods in Engineering (2023 and 2024), his development as a researcher was evident.

Mr. Lopes combines methodological precision with a notable ability to translate theoretical results into productive analytical routines. His work ranges from the formulation of regression models (Simplex, Beta, and GLMs) to their implementation and monitoring in high-demand environments. Rather than limiting himself to academic demonstrations, he conducts the full solution cycle: problem definition, study design, modeling, deployment, and ongoing performance monitoring.

In the financial sector, this approach has resulted in tangible improvements. At major banking institutions such as HSBC and Bradesco, he successfully applied statistical modeling to credit portfolio risk management and anomaly detection in transactional flows, generating financial impact in the billions of reais for large corporations and supporting improved decisions regarding limits, pricing, and policy design. These procedures were disseminated internally and became part of routine prioritization and analytical workflows. In terms of scale, these were high-value portfolios in which even modest improvements in predictive accuracy produced material effects on default rates and capital allocation.

With respect to technical competencies, Mr. Lopes works with statistical computing environments and integrates modeling with databases and widely used industry tools, demonstrating fluency in transitioning from prototype to production and in auditing model performance (robustness, stability, and bias assessment). This inferential rigor and the discipline with which he conducts validation place him among the most qualified professionals in the field, not only because he masters advanced techniques, but because he establishes processes that ensure solutions remain sustainable over time.

[stamp]
Paulo Justiniano Ribeiro Junior
Dpartment of Statistics – UFPR
Registration No.: 109789

-----// signature //-----

In the United States, his expertise is well positioned to generate immediate value in critical areas such as model governance and explainability, regulatory compliance in highly regulated environments, anomaly detection in financial transactions, and behavioral segmentation of large-scale datasets. The combination of methodological rigor, scalability, and careful performance monitoring reduces operational risk, increases predictability, and strengthens confidence in algorithmic decision-making—central priorities in the financial and technology sectors.

For these reasons, I fully support Mr. Lopes's petition for the EB-2 NIW. He is a professional of exceptional caliber, capable of converting statistical advances into measurable and lasting gains for organizations and for the scientific community.

Please feel free to contact me should you require any additional information.

Sincerely,

-----// signature //-----
Paulo Justiniano Ribeiro Junior
Associate Professor, Department of Statistics, UFPR
Curitiba, Paraná, Brazil

[stamp]
Paulo Justiniano Ribeiro Junior
Dpartment of Statistics – UFPR
Registration No.: 109789

I, Raphael Michels Fantinato de Moura, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: February 20, 2026.

10 de Agosto de 2025

E-mail: paulojus@ufpr.br
Telefone: +55 (41) 3361-3573

Prezado(a) Oficial do United States Citizenship and Immigration Services (USCIS),

Sou Paulo Justiniano Ribeiro Junior, Professor Associado do Departamento de Estatística da UFPR. Minha formação reúne Graduação em Agronomia (UFLA), Mestrado (USP) e Doutorado em Estatística pela Lancaster University (Inglaterra, 2002), sob orientação do Prof. Peter J. Diggle. Desde 2003 coordeno o Laboratório de Estatística e Geoinformação (LEG), no qual desenvolvemos pesquisa e formação em estatística espacial, geoestatística, inferência bayesiana e desenvolvimento de software estatístico, incluindo o pacote geoR.

Meu primeiro contato com o Sr. José Evandeilton Lopes remonta à graduação dele na UFPR, quando acompanhei seu Trabalho de Conclusão de Curso sobre modelos de Regressão Simplex. A qualidade técnica daquele estudo levou à nossa copublicação "Likelihood analysis for a class of simplex models", no *Chilean Journal of Statistics*. Posteriormente, atuei em sua banca de mestrado, em que ele propôs um modelo para análise de dados em escala, aprofundando ferramentas de modelagem com rara maturidade. Em eventos como os Simpósios de Métodos Numéricos em Engenharia (2023 e 2024), seu progresso como pesquisador ficou evidente.

O Sr. Lopes alia exatidão metodológica a uma notável capacidade de transportar resultados teóricos para rotinas produtivas. Sua prática inclui desde a formulação de modelos de regressão (Simplex, Beta e GLMs) até a implementação e monitoramento em ambientes de alta demanda. Em vez de se restringir a demonstrativos acadêmicos, ele conduz o ciclo completo de solução: definição do problema, desenho experimental, modelagem, implantação e acompanhamento dos resultados.

No setor financeiro, essa abordagem resultou em melhorias tangíveis. Em bancos de grande porte como HSBC e Bradesco, aplicou com sucesso a modelagem estatística na gestão de risco de carteiras de crédito e na análise de anomalias em fluxos transacionais, gerando impacto financeiro bilionário em grandes corporações e favorecendo decisões melhores sobre limites, preços e políticas. Tais procedimentos foram difundidos internamente e passaram a orientar rotinas de priorização e atendimento analítico. Em termos de escala, tratam-se de portfólios de alto valor, nos quais pequenas melhorias de acurácia produzem efeitos materiais na inadimplência e na alocação de capital.

Quanto às competências técnicas, o Sr. Lopes trabalha com ambientes estatísticos e integra modelagem a bancos de dados e ferramentas usuais do mercado, demonstrando fluência na passagem do protótipo ao ambiente produtivo e na auditoria de desempenho (robustez, estabilidade, vieses). Essa solidez inferencial e a disciplina com que conduz validações o colocam na faixa mais qualificada da profissão, não apenas por dominar técnicas, mas por instituir processos que tornam as soluções sustentáveis ao longo do tempo.

Prof. Paulo Justiniano Ribeiro Junior
Departamento de Estatística – UFPR
Matrícula: 109789

Nos Estados Unidos, sua atuação tende a gerar valor imediato em frentes críticas como governança e explicabilidade de modelos, conformidade em ambientes regulados, prevenção de transações atípicas e estratificação comportamental de grandes bases. A combinação de método, escala e cuidado com monitoramento reduz riscos operacionais, aumenta previsibilidade e fortalece a confiança em decisões algorítmicas, pontos centrais para setores financeiro e de tecnologia.

Por essas razões, apoio integralmente o pedido do Sr. Lopes ao EB-2 NIW. Trata-se de um profissional de padrão de excelência, capaz de converter avanços estatísticos em ganhos mensuráveis e persistentes para organizações e para a comunidade científica.

Coloco-me à disposição para quaisquer esclarecimentos adicionais.

Cordialmente,

Paulo Justiniano Ribeiro Junior
Professor Associado, Departamento de Estatística, UFPR
Curitiba, Paraná, Brasil

...ulo Justiniano Ribeiro Junior
...artamento de Estatística – UFPR
Matrícula: 109789



Paulo Justiniano Ribeiro Junior

Address to access this CV: http://lattes.cnpq.br/0852938701434556
ID Lattes: **0852938701434556**
Last updated: 06/18/2025

bachelor's at Agronomia from Universidade Federal de Lavras (1989), master's at Agronomia from Universidade de São Paulo (1992) and doctorate at Statistics from Lancaster University (2002). Has experience in Probability and Statistics, focusing on Spatial Statistics, acting on the following subjects: estatística espacial, geoestatística, geostatistics, spatial statistics and bayesian inference. **(Text informed by the author)**

Personal Information

Name

Paulo Justiniano Ribeiro Junior

Bibliographic Citation

RIBEIRO JR, P. J.;Ribeiro Júnior, Paulo Justiniano;Ribeiro, Paulo J.;Justiniano Júnior, Paulo R.;Ribeiro Junior, Paulo Justiniano;Ribeiro Jr, Paulo Justiniano;Ribeiro Jr., Paulo J.;Ribiero, Paulo;RIBEIROJR, P;Ribeiro, P. J.;Jr, P. Ribeiro;RIBEIRO, P;Ribeiro, Paulo Justiniano;Ribeiro-Junior, P.J.;RIBEIRO-JUNIOR, P. J.;RIBEIRO JÚNIOR, P.J.;RIBEIRO, PAULO JUSTIANO;JUSTINIANO RIBEIRO JÚNIOR, PAULO

Lattes iD

http://lattes.cnpq.br/0852938701434556

Orcid iD

? https://orcid.org/0000-0001-5302-9446

Nationality

Brazil

Address

Professional Address

Federal University of Paraná, Exact Sciences Division, Department of Statistics.
Exact Sciences Building, 2nd floor, Polytechnic Cen

Jardim das Américas
81531990 - Curitiba, PR - Brazil – Mailbox: 19081
Telephone: (41) 33613573
Fax: (41) 33613141
Homepage URL: http://www.leg.ufpr.br/~paulojus

Formal Education/Degree

1997 - 2002

Ph.D. in Statistics.
Lancaster University, LANCASTER, England., Year of degree: 2003.
Advisor: Peter John Diggle.
Scholarship holder of: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.
Keywords: geostatistics; spatial statistics; statistical software; Bayesian inference.
Major Area: Exact and Earth Sciences
Activity sectors: Products and services on defense and protection of the environment, including the sustained development; Weather forecast and climatic prospection; Vegetable production.

1990 - 1992

Master in Agronomia.
University of São Paulo, USP, Brazil. Year of degree: 1995.
Advisor: Klaus Reichardt.
Scholarship holder of: National Council for Scientific and Technological Development, CNPq, Brazil.
Keywords: geostatistics; spatial statistics; soil physics; spatial variability.
Major Area: Exact and Earth Sciences
Major Area: Agrarian Sciences / Area: Agronomy / Subarea: Soil Science / Specialty: Spatial Variability.
Activity sectors: Products and services on defense and protection of the environment, including the sustained development; Irrigation and draining; Vegetable production.

1985 - 1989

Graduation in Agronomy.
Federal University of Lavras, UFLA, Brazil.

Professional Experience

Contract

1992 - Present

Type of contract: Government Employee, Functional Placement: Associate Professor, Credit Hours: 40, Regime: Exclusive Dedication.

Activities

01/2019 - Present

Manager and Administrative Positions, Department of Statistics.

Type of contract: Government Employee, Functional Placement: Associate Professor, Credit Hours: 40, Regime: Exclusive Dedication.

08/2005 - Present

Teaching, Computer Science, Degree: Graduation

Disciplines Taught
CE-003: Statistics II

03/2003 - Present

Manager and Administrative Positions, LEG: Laboratory of Statistics and Geoinformation.

Position or Function
Laboratory Coordinator.

01/2003 - Present

Teaching, Numerical Methods in Engineering, Degree: Pos-Graduation

Disciplines Taught
CE-712: Directed Study – Bayesian Inference
CE-718: Computationally Intensive Methods
CE-714: Applied Geostatistics

01/1994 - Present

Research and Development, Exact Sciences Sector, Department of

Statistics.

Research Fields
Geostatistics

04/1992 - Present

Teaching, Statistics, Degree: Graduation

Disciplines Taught
Computational Statistics
Basic Statistics
Statistical Inference I and II
Introduction to Geostatistics
Introduction to Linear Models
Statistics Laboratory I and II
Experimental Design I and II

01/1993 - 12/1997

Teaching, Geoprocessing, Degree: Specialization

Disciplines Taught
Basic Statistics
Introduction to Geostatistics

01/1995 - 12/1996

Manager and Administrative Positions, Exact Sciences Sector, Department of Statistics.

Position or Function
Head of the Statistics Laboratory.

01/1994 - 12/1994

Manager and Administrative Positions, Exact Sciences Sector, Department of Statistics.

Position or Function
Deputy Head of the Statistics Laboratory.

University of São Paulo, USP, Brazil.

Contract

2008 - 2018

Type of contract: Collaborator, Functional Placement: Member, Credit Hours: 4

Research line

1.

Geostatistics

Objective: Development, computational implementation, and applications of geostatistical methods for the analysis of data with continuous spatial variation.
Major Area: Exact and Earth Sciences.
Activity sectors: Products And Services On Defense And Protection Of The Environment, Including The Sustained Development.
Keywords: geostatistics; linear models; spatial correlation; generalized linear mixed models; Bayesian inference; statistical software.

Research projects

2008 - 2012

Agricultural Insurance: Statistical Modeling and Pricing

Description: A characteristic of agricultural activity is its susceptibility to exogenous variables, such as adverse climatic phenomena, changes in market conditions, and shifts in the political and economic environments, among others. Efficient risk management in agribusiness is crucial for achieving the desired return and for protecting against major negative impacts on profitability. An effective risk management mechanism in agribusiness is agricultural insurance, however, its adoption in Brazil is still very low. One of the main obstacles in the agricultural insurance market is the lack of methodologies that adequately quantify the risk associated with the activity. Agricultural insurance presents particularities that completely violate assumptions commonly made in actuarial studies, such as the independence between insured units. For example, a loss caused by a drought may affect not only one rural property but hundreds of properties across a vast territorial area. This systemic nature of risk makes aggregate risk greater than individual risk, thereby increasing the probability of insurer ruin. It is therefore evident that the spatial component must be considered in any attempt at actuarial modeling involving systemic risk, as is the case

in agricultural activity. The results of the project may benefit not only the participating educational institutions but also the insurance market as a whole. The general objective of this project is to develop risk management methodologies for Brazilian agribusiness from a statistical-actuarial and economic perspective, based on the generation of efficient insurance strategies for the sector..
Situation: In progress; Nature: Research.

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Renato Martins Assunção - Member / Ramiro Ruiz Cárdenas - Member / Vitor Augusto Osaki - Member / Marcelo Azevedo Costa - Member / Clarice Garcia Borges Demétrio - Member / Edna Afonso Reis - Member / Ricardo Shirota - Member / Vladimir Belitsky - Member / Viviana Giampaoli - Member / João Domingos Scalon - Member / Júlio Sílvio de Sousa Bueno Filho - Member.
Financier(s): Coordination for the Improvement of Higher Education Personnel - Grant.

2008 - Current

Statistical Modeling Research Group

Description: Group leader at http://dgp.cnpq.br/dgp/espelhogrupo/6985467793161471
Statistical modeling activities developed within the scope of LEG UFPR, including the production of materials, computational technologies, and partnerships with various researchers.
Situation: In progress; Nature: Research.
Participant students: Graduation: (10) / Academic master's degree: (2) / Doctorate: (2) .

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Elias Teixeira Krainski - Member / Wagner Hugo Bonat - Member / Cesar Augusto Taconelii - Member / Fernando de Pol Mayer - Member / Walmes Marques Zeviani - Member.

S, T & A Production Rate: 10

2007 - 2011

THEMATIC Research Project: Estimability of measures of association and risk in spatial case-control studies, FAPESP 2006/05920-7

Description: Case-control studies represent one of the major methodological contributions of epidemiology, providing an efficient way to obtain population estimates of relative risk and attributable fraction. During the second half of the 20th century, these studies underwent remarkable methodological development, incorporating complex and diverse sampling designs, developing

methods to estimate risk and statistical significance in stratified and multivariate designs, improving control of confounding variables, identifying interactions more precisely, and, in particular situations, even dispensing with the sampling of controls to obtain valid results. However, despite the substantial advances in geographic information systems and spatial data analysis over the past 20 years, the incorporation of the spatial dimension into case-control studies remains limited, although important work has emerged in this area, particularly in environmental and geographic epidemiology. Given this context, this project investigates a methodological approach: the spatial case-control study, understood as a case-control study that explicitly incorporates spatial location as a covariate of interest. Such incorporation, given the nonlinearity of the spatial distribution of most epidemiological events, requires substantial changes to the usual analytical tools applied in case-control studies. The objectives of this project, in spatial case-control studies, are: a) to examine the behavior and epidemiological meaning of the spatial relative risk function under different sampling designs, including case-base sampling, risk-set sampling, and sampling from disease survivors. b) to develop a computational model that, given a set of predefined demographic, geographic, and epidemiological parameters under a stochastic framework, allows simulation and evaluation of these methods.
Situation: Completed; Nature: Research.
Participant students: Graduation: (4) / Academic master's degree: (4) / Doctorate: (4).

Members: Paulo Justiniano Ribeiro Junior - Member / Ricardo Carlos Cordeiro - Coordinator / Trevor Charles Bailey - Member / Laécio Carvalho de Barros - Member / Cláudia Torres Codeço - Member.
Financier(s): São Paulo Research Foundation - Grant.
S, T & A Production Rate: 1

2006 - Current

Applied Spatial Statistics

Description: Statistical methods applicable to spatially distributed data have been developed to address the complexity of studies in which the location of the data plays a central role in the analysis. Such methods have become a central focus in the development of statistical methodology in recent years due mainly to: (i) the availability of

increasingly precise and detailed databases, including geographic positions, (ii) the availability of computational resources capable of handling and managing such data, such as GIS (Geographic Information Systems) tools, (iii) the capacity to process complex and structured statistical models even on small-scale computers. The specificity of current studies has fostered the development of statistical methods motivated by applied problems, as well as the adaptation of general solutions to meet the specific objectives of each problem. Alongside methodological development, it is essential to provide computational routines that enable the use of such methodologies in real data analysis. In particular, implementation as free and open-source software is desirable, allowing testing, modification, information sharing, and collaboration with other research groups, ultimately leading to more reliable and adaptable implementations. The project was reactivated with a revised team due to research and developments in the area carried out by students, advisees, and faculty members. Currently, there is strong emphasis on inference methods for spatial models, particularly geostatistical models. Extensions and applications include point processes with latent Gaussian effects, compositional data, multivariate geostatistics, and algorithms for inference in non-Gaussian models. The project also includes collaboration with universities in Trondheim (Norway) and Odense (Denmark).
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) / Academic master's degree: (2) / Doctorate: (1).

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Elias Teixeira Krainski - Member / Wagner Hugo Bonat - Member / Fernando de Pol Mayer - Member / Walmes Marques Zeviani - Member / Fernando Gomes Moro - Member / Gabriel Sartori - Member / RIBEIRO, ANGÉLICA MARIA TORTOLA - Member / Kally Chung - Member.
Financier(s): Araucária Foundation for the Support of Scientific and Technological Development – Grant / National Institute for Space Research – Cooperation / Citrus Defense Fund – Cooperation
S, T & A Production Rate: 10

2004 - 2005

Spatial Statistical Analysis of Citrus Sudden Death

Description: Citrus Sudden Death (CSD) is a relatively new disease in citrus production, currently restricted to the southern region of the Triângulo

Mineiro (Minas Gerais State) and the northern region of São Paulo State. Due to its symptoms (rapid plant decline and death) and because it affects trees grafted onto Rangpur lime rootstock (approximately 85% of trees are grafted onto this rootstock), CSD represents a serious potential threat to Brazilian citriculture, therefore, any information generated about this disease is of utmost importance for the development of control strategies. In its initial phase, this project involved statistical analysis using advanced spatial statistics techniques applied to trees showing CSD symptoms in different orchard plots, aiming to characterize the spatio-temporal patterns of the disease and to simulate its spread within orchards. The spatio-temporal analysis of epidemics can, in many cases, be sufficient to outline a strategy to address the problem or even to support tactical decision-making. In a subsequent phase, the study expanded to a larger scale, moving from the orchard level to the municipal and state levels. Data obtained from detailed annual surveys of CSD occurrence were analyzed using spatial statistical tools to determine whether the disease was in fact restricted to the southern Triângulo Mineiro region and northern São Paulo State. Different stochastic models were investigated in an attempt to identify possible patterns in the spread of the disease at this scale. If detected, such patterns could allow conjectures about the direction and speed of disease spread. These models were designed to allow dynamic updating and revision as new data became available. Based on the fit of the available data to the developed models, and if spatio-temporal patterns were identified, it would be feasible to generate forecasts using simulation techniques to provide additional information to support monitoring and control strategies.
Situation: Completed; Nature: Research.
Participant students: Graduation: (1).

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Elias Teixeira Krainski - Member / Renato Beozzo Bassanezi - Member.
Financier(s): Citrus Defense Fund – Grant / Citrus Defense Fund – Scholarship.
S, T & A Production Rate: 3

2003 - 2010

SAUDAVEL: Unified Support System for Detection and Monitoring in Epidemiological Surveillance

Description: The SAUDAVEL Project (Unified Support System for Detection and Monitoring in Epidemiological Surveillance) proposes the use of

Spatial Information Technologies to support Endemic Disease Control: from the “Places of Disease” to the “Diseases of Place.” The main objective of the project is to provide answers and develop Spatial Information Technology (IT) instruments, methods, algorithms, and software products to equip epidemiological surveillance and endemic disease control systems with anticipatory capacity. This is achieved through the ability to process large spatio-temporal databases, integrating data from Health Information Systems (HIS) with demographic and contextual data characterizing populations and their locations. SAUDAVEL incorporates Spatial IT, including Geographic Databases, Geographic Information Systems, and Spatio-Temporal Analysis, into the context of endemic disease control. By transforming points and polygons in space and time into “Places of Disease,” determining their distribution, and integrating additional information about the people in those locations — such as census data — as well as better characterizing these areas — socio-environmental information —, the project also aims to reveal the “Diseases of Place.” This project was approved under the Joint Call MCT/SEPIN – FINEP – CNPq 01/2002 of the Program for Support of Research, Development, and Innovation in Information Technology – PDI-TI. SAUDAVEL operated as an inter-institutional network involving five different institutions: INPE (National Institute for Space Research), through DPI – Image Processing Division; UFMG (Federal University of Minas Gerais), through LESTE – Laboratory of Spatial Statistics; PRODABEL, the Information Technology and Information Company of the Municipality of Belo Horizonte (CDE); UFPR (Federal University of Paraná), through the Department of Statistics; FIOCRUZ (Oswaldo Cruz Foundation), through the Department of Epidemiology and Quantitative Health Methods of ENSP (National School of Public Health) and the Department of Public Health of CPqAM (Aggeu Magalhães Research Center).
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (5) / Doctorate: (5).

Members: Paulo Justiniano Ribeiro Junior - Member / Renato Martins Assunção - Member / Antônio Miguel Vieira Monteiro - Coordinator / Clodoveu Davis - Member / Marília Sá Carvalho - Member / Wayner Vieira de Souza - Member / Lêda Regis - Member / André Furtado - Member.
Financier: National Council for Scientific and Technological Development (CNPq) – Grant.
S, T & A Production Rate: 2

2003 - 2004

Spatial patterns of the citrus black spot epidemic

Description: There are two modes of reproduction of the pathogen that causes

citrus black spot, which define spatial patterns in the course of the epidemic. It is hypothesized that the first form, ascospores, spores from the sexual phase of the pathogen, generate a random spatial pattern, since the reproductive structures are dispersed by wind. In contrast, pycnidiospores, associated with the asexual phase, are expected to generate a structured spatial pattern, as their dissemination occurs through rainwater runoff or irrigation, and contamination from one tree to another occurs via contact with this water. The objective of this study was to apply statistical tools such as the {\tt loess} function, semivariograms, and Ripley's K function to investigate and better understand spatial patterns, and subsequently to model them by incorporating random effects with spatial structure using Markov random field priors, as well as random effects without spatial structure. The methods employed identified a spatial pattern suggesting that pycnidiospores play an important epidemiological role in disease incidence in plants. The proposed modeling approach allowed evaluation of hypotheses regarding the predominant reproductive mechanisms of the pathogen. The fitted model showed a strong contribution of the spatially structured random effect to the risk of disease occurrence in orange trees, whereas for the risk in fruits, the unstructured heterogeneity random effect was predominant.
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (1).

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Glaucy da Conceição Ortiz - Member / Renato Beozzo Bassanezi - Member / Lilian Amorim - Member / Macel Belatto Spósito - Member.
Financier: Citrus Defense Fund – Grant.
S, T & A Production Rate: 1

Development projects

2006 - 2014

Interface between terralib and the R statistical environment

Description: To develop, maintain, and expand the API-aRT capability linking R and TerraLib, enabling an interface between a statistical computing environment (R) and an environment with Geographic Information Systems (GIS) capabilities (TerraLib). The work reflects an ongoing partnership and collaboration between LEG (Laboratory of Statistics and Geoinformation) at UFPR and DPI (Image Processing Division) at INPE, and was developed within the scope of the

FAPESP THEMATIC PROJECT: A Computational Environment for Species Distribution Modeling, Fapesp ? Process No. 04/11012-0. http://www.leg.ufpr.br/aRT
Situation: Completed; Nature: Development.
Participant students: Graduation: (1) / Academic master's degree: (3) / Doctorate: (1).

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Antônio Miguel Vieira Monteiro - Member / Pedro Ribeiro de Andrade Neto - Member / Simone Bonish - Member / Eduardo Sant'Ana da Silva - Member.
Financier(s): National Institute for Space Research – Cooperation / São Paulo Research Foundation (FAPESP) – Grant

Member of editorial board

2019 - Present

Scientific Journal: Brazilian Journal of Statistics (RBEs)

2011 - 2016

Scientific Journal: Biometrics (Washington)

2009 - 2011

Scientific Journal: Biometrics (Washington)

2008 - 2018

Scientific Journal: Brazilian Journal of Statistics

2007 - 2017

Scientific Journal: Brazilian Journal of Biometrics

Scientific journal referee

2012 - 2012

Journal: Methods in Ecology and Evolution

2011 - 2011

Journal: Floresta (UFPR. Print Edition)

2010 - 2010

Journal: Public Health Reports (ENSP. Print Edition)

2010 - 2010

Journal: Reports in Public Health (ENSP. Print Edition)

2010 - 2010

Journal: Scientia Forestalis (IPEF)

2009 - 2009

Journal: Scientia Forestalis (IPEF)

2009 - 2009

Journal: International journal of health geographics

2009 - 2009

Journal: EnvironMetrics (London. Ont.)

2009 - 2009

Journal: Rural Science (UFSM. Print Edition)

2009 - 2009

Journal: Bragantia (São Paulo, SP. Print Edition)

2009 - 2009

Journal: Brazilian Journal of Biometrics

2006 - 2006

Journal: Statistical Modelling

2008 - 2008

Journal: Water Resources Research

2012 - 2012

Journal: Brazilian Journal of Statistics

2006 - 2006

Journal: Brazilian Journal of Statistics

2003 - 2003

Journal: Brazilian Journal of Statistics

2009 - 2009

Journal: Stochastic Environmental Research and Risk Assessment (Print)

2008 - 2008

Journal: Brazilian Journal of Probability and Statistics

2008 - 2008

Journal: Journal of Agricultural, Biological and Environmental Statistics

2002 - 2002

Journal: Applied Statistics (Print)

2003 - 2003

Journal: Ecological Modelling

2007 - 2007

Journal: Ecology (Brooklyn, New York, N.Y.)

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Area: Probability and Statistics / Subarea: Statistics/Specialty: Spatial Statistics.

2.

Major Area: Agrarian Sciences / Area: Agronomy / Subarea: Soil Sciences/Specialty: Spatial Variability.

3.

Major Area: Agrarian Sciences / Area: Forest Resources and Forest Engineering.

4.

Major Area: Exact and Earth Sciences / Area: Geosciences / Subarea: Meteorology.

Languages

Spanish

Comprehends Reasonably, Speaks Reasonably, Reads Reasonably, Writes Reasonably.

English

Comprehends Well, Speaks Well, Reads Well, Writes Well.

Scientific, Technological, Artistic and Cultural Production

Full articles published in journals

Sort by

Chronological Order

1.

FERREIRA, G. M. ; KLEINA, H. T. ; BLOOD, R. Y. ; **Ribeiro Junior, Paulo Justiniano** ; DE MIO, LOUISE LARISSA MAY . Dynamics of Xylella fastidiosa and Plum Leaf Scald: Insights from a Long-term Study in Brazilian Orchards. PLANT PATHOLOGY JCR , v. 74, p. 476-492, 2025.

2.

PARREIRA DA SILVA, GUILHERME ; APARECIDO LAUREANO, HENRIQUE ; RASMUSSEN PETTERLE, RICARDO ; **JUSTINIANO RIBEIRO JÚNIOR, PAULO** ; HUGO BONAT, WAGNER . Multivariate Generalized Linear Mixed Models for Count Data. Austrian Journal Of Statistics JCR, v. 53, p. 44-69, 2024. **Citações:** SCOPUS 2

3.

SILVA, G. P. ; LAUREANO, H. A. ; PETTERLE, R. R. ; **Ribeiro Junior, Paulo Justiniano** ; BONAT, W. H. . Multivariate generalized linear mixed models for underdispersed count data. JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION JCR, v. 93, p. 2410-2427, 2023.

4.

LAUREANO, HENRIQUE APARECIDO ; PETTERLE, RICARDO RASMUSSEN ; SILVA, GUILHERME PARREIRA DA ; **Ribeiro Junior, Paulo Justiniano** ; BONAT, WAGNER HUGO . A multinomial generalized linear mixed model for clustered competing risks data. COMPUTATIONAL STATISTICS (ZEITSCHRIFT. INTERNET) JCR, v. 39, p. 1417-1434, 2023.

5.

RIFFEL, V. R. ; Taconeli, C. A. ; **Ribeiro Jr., Paulo J.** . On distribution selection under ranked set sampling schemes. COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION JCR, v. xx, p. 1-21, 2022. **Citations:** WEB OF SCIENCE ™ 1| SCOPUS 1

6.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; **Ribeiro Junior, Paulo Justiniano** ; BONAT, WAGNER HUGO . A Kronecker-based covariance specification for spatially continuous multivariate data. STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT JCR, v. online, p. 1, 2022. **Citations:** WEB OF SCIENCE ℠ 2| SCOPUS 2

7.

EHABER, V. F. ; BONAT, W. H. ; DIGGLE, P. J. ; **Ribeiro, P. J.** . A geostatistical spatio-temporal model to non-fixed locations. Stochastic Environmental Research And Risk Assessment JCR, v. 35, p. 165-182, 2021. **Citations:** WEB OF SCIENCE ℠ 1

8.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; **Ribeiro Júnior, Paulo Justiniano** ; BONAT, WAGNER HUGO . COMPARISON OF EXPONENTIAL COVARIANCE FUNCTIONS FOR BIVARIATE GEOSTATISTICAL DATA. BRAZILIAN JOURNAL OF BIOMETRICS, v. 39, p. 89-102, 2021. **Citations:** SCOPUS 2

9.

DIAS, N. L. C. ; **Ribeiro Junior, Paulo Justiniano** . Practical rules for summing the series of the Tweedie probability density function with high-precision arithmetic. ANNALS OF THE BRAZILIAN ACADEMY OF SCIENCES (ONLINE) JCR, v. 91, p. 20180268, 2019.

10.

BASSANEZI, R. B. ; CZERMAINSKI, A. B. C. ; LARANJEIRA, F. F. ; MOREIRA, A. S. ; **Ribeiro, P. J.** ; KRAINSKI, E. T. ; AMORIM, L. . Spatial patterns of the Citrus leprosis virus and its associated mite vector in systems without intervention. PLANT PATHOLOGY JCR, v. 68, p. 85-93, 2019. **Citations:** WEB OF SCIENCE ℠ 14 | SCOPUS 16

11.

MAYER, FERNANDO POL ; SANT'ANA, RODRIGO ; **Ribeiro Junior, Paulo Justiniano** . Modeling the temporal structure of incidental catches in commercial fisheries using bayesian hierarchical models. BRAZILIAN JOURNAL OF BIOMETRICS, v. 37, p. 446-466, 2019. **Citations:** SCOPUS 1

12.

ROESE, A. D. ; **Ribeiro Junior, Paulo Justiniano** ; SILVA, V. P. ; MAY DE MIO, LOUISE L. . Agrosilvopastoral system enhances suppressiveness to soybean damping-off caused by Rhizoctonia solani and alters Fusarium and Trichoderma

I, Raphael Michels Fantinato de Moura, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.

Raphael Michels Fantinato de Moura.

Date: February 22, 2026.



Paulo Justiniano Ribeiro Junior

Address to access this CV: http://lattes.cnpq.br/0852938701434556
ID Lattes: **0852938701434556**
Last updated: 18/06/2025

bachelor's at Agronomia from Universidade Federal de Lavras (1989), master's at Agronomia from Universidade de São Paulo (1992) and doctorate at Statistics from Lancaster University (2002). Has experience in Probability and Statistics, focusing on Spatial Statistics, acting on the following subjects: estatística espacial, geoestatística, geostatistics, spatial statistics and bayesian inference. **(Text informed by the author)**

Personal Information

Name

Paulo Justiniano Ribeiro Junior

Bibliographic Citation

RIBEIRO JR, P. J.;Ribeiro Júnior, Paulo Justiniano;Ribeiro, Paulo J.;Justiniano Júnior, Paulo R.;Ribeiro Junior, Paulo Justiniano;Ribeiro Jr, Paulo Justiniano;Ribeiro Jr., Paulo J.;Ribiero, Paulo;RIBEIROJR, P;Ribeiro, P. J.;Jr, P. Ribeiro;RIBEIRO, P;Ribeiro, Paulo Justiniano;Ribeiro-Junior, P.J.;RIBEIRO-JUNIOR, P. J.;RIBEIRO JÚNIOR, P.J.;RIBEIRO, PAULO JUSTIANO;JUSTINIANO RIBEIRO JÚNIOR, PAULO

Lattes iD

http://lattes.cnpq.br/0852938701434556

Orcid iD

? https://orcid.org/0000-0001-5302-9446

Nationality

Brasil

Address

Professional Address

Universidade Federal do Paraná, Setor de Ciências Exatas, Departamento de Estatística.
Prédio das Exetas, 2o andar, Centro Politécnico

Jardim das Américas
81531990 - Curitiba, PR - Brasil - Mailbox: 19081
Telephone: (41) 33613573
Fax: (41) 33613141
Homepage URL: http://www.leg.ufpr.br/~paulojus

Formal Education/Degree

1997 - 2002

Ph.D. in PhD in Statistics.
Lancaster University, LANCASTER, Inglaterra. , Year of degree: 2003.
Advisor: Peter John Diggle.
Scholarship holder of: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.
Keywords: geostatistics; spatial statistics; statistical software; Bayesian inference.
Major Area: Exact and Earth Sciences
Activity sectors: Products and services on defense and protection of the environment, including the sustained development; Weather forecast and climatic prospection; Vegetable production.

1990 - 1992

Master in Agronomia.
Universidade de São Paulo, USP, Brasil. Year of degree: 1995.
Advisor: Klaus Reichardt.
Scholarship holder of: Conselho Nacional de Desenvolvimento Científico e Tecnológico, CNPq, Brasil.
Keywords: geoestatística; estatística espacial; física de solos; variabilidade espacial.
Major Area: Exact and Earth Sciences
Major Area: Agrarian Sciences / Area: Agronomy / Subarea: Ciência do Solo / Specialty: Variabilidade Espacial.
Activity sectors: Products and services on defense and protection of the environment, including the sustained development; Irrigation and draining; Vegetable production.

1985 - 1989

Graduation in Agronomia.
Universidade Federal de Lavras, UFLA, Brasil.

Professional Experience

Contract

1992 - Present

Type of contract: Government Employee, Functional Placement: Professor Associado, Credit Hours: 40, Regime: Exclusive Dedication.

Activities

01/2019 - Atual

Manager and Administrative Positions, Departamento de Estatística.

Position or Function
Chefia do Departamento de Estatística.

08/2005 - Atual

Teaching, Ciência da Computação, Degree: Graduation

Disciplines Taught
CE-003: Estatística II

03/2003 - Atual

Manager and Administrative Positions, LEG: Laboratório de Estatística e Geoinformação.

Position or Function
Coordenador do Laboratório.

1/2003 - Atual

Teaching, Métodos Numéricos em Engenharia, Degree: Pos-Graduation

Disciplines Taught
CE-712: Estudo dirigido - Inferência Bayesiana
CE-718 Métodos computacionalmente intensivos
CE-714: Geoestatística aplicada

1/1994 - Atual

Research and Development, Setor de Ciências Exatas, Departamento de

Estatística.

Research Fields
Geoestatística

4/1992 - Atual

Teaching, Estatística, Degree: Graduation

Disciplines Taught
Estatística Computacional
Estatística Básica
Inferência Estatística I e II
Introdução a Geoestatística
Introdução aos modelos lineares
Laboratório de Estatística I e II
Planejamento de Experimentos I e II

1/1993 - 12/1997

Teaching, Geoprocessamento, Degree: Specialization

Disciplines Taught
Estatística Básica
Introdução à Geoestatística

1/1995 - 12/1996

Manager and Administrative Positions, Setor de Ciências Exatas, Departamento de Estatística.

Position or Function
Chefia do Laboratório de Estatística.

1/1994 - 12/1994

Manager and Administrative Positions, Setor de Ciências Exatas, Departamento de Estatística.

Position or Function
Vice-chefia do Laboratório de Estatística.

Universidade de São Paulo, USP, Brasil.

Contract

2008 - 2018

Type of contract: Colaborator, Functional Placement: Integrante, Credit Hours: 4

Research line

1.

Geoestatística

Objective: Desenvolvimento, implementação computacional e aplicações de métodos geoestatísticos para análise de dados com variação espacial contínua.
Major Area: Exact and Earth Sciences
Activity sectors: Produtos e Serviços Voltados Para A Defesa e Proteção do Meio Ambiente, Incluindo O Desenvolvimento Sustentado.
Keywords: geoestatística; modelos lineares; correlação espacial; modelos lineares generalizados mixtos; inferência Bayesiana; software estatistico.

Research projects

2008 - 2012

Seguro Agrícola: Modelagem Estatística e Precificação

Description: Uma característica da atividade agrícola é sua susceptibilidade a variáveis exógenas, tais como fenômenos climáticos adversos, mudanças nas condições de mercado e nos ambientes político e econômico, entre outras. A gestão eficiente dos riscos no agronegócio é crucial para a obtenção do retorno desejado e para se proteger de grandes efeitos negativos na rentabilidade. Um eficiente mecanismo de gestão de risco no agronegócio é o seguro agrícola, no entanto, sua adoção no Brasil ainda é muito baixa. Um dos principais entraves do mercado de seguro agrícola é a falta de metodologias que quantifiquem adequadamente o risco associado à atividade. O seguro agrícola apresenta peculiaridades que violam completamente pressuposições comumente feitas em estudos atuariais, tais como a independência entre as unidades seguradas. Por exemplo, um sinistro causado por uma seca pode afetar não somente uma propriedade rural, mas centenas de propriedades em uma vasta extensão territorial. Essa natureza sistêmica do risco faz com que o risco agregado se torne maior do que o risco individual, elevando assim a probabilidade da seguradora entrar em ruína. Fica evidente, portanto, a importância de se considerar o componente espacial em qualquer tentativa de modelagem atuarial envolvendo risco sistêmico, como é o caso

da atividade agrícola. Os resultados do projeto poderão beneficiar não apenas às instituições de ensino envolvidas, mas o mercado segurador como um todo Este projeto tem como objetivo geral desenvolver metodologias de gestao do risco para o agronegócio brasileiro sob uma perspectiva estatístico-atuarial e econômica, baseadas na geracao de estratégias de seguro eficientes para o setor..
Situation: In progress; Nature: Research.

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Renato Martins Assunção - Member / Ramiro Ruiz Cárdenas - Member / Vitor Augusto Osaki - Member / Marcelo Azevedo Costa - Member / Demétrio, Clarice Garcia Borges - Member / Edna Afonso Reis - Member / Ricardo Shirota - Member / Vladimir Belitsky - Member / Viviana Giampaoli - Member / João Domingos Scalon - Member / Júlio Sílvio de Sousa Bueno Filho - Member.
Financier(s): Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Grant.

2008 - Current

Grupo de pesquisa em Modelagem Estatística

Description: Líder de grupo em http://dgp.cnpq.br/dgp/espelhogrupo/6985467793161471 Atividades de modelagem estatísticas desenvolvidas no âmbito do LEG UFPR com produção de materiais, tecnologias computacionais e parcerias com pesquisadores diversos.
Situation: In progress; Nature: Research.
Participant students: Graduation: (10) / Academic master's degree: (2) / Doctorate: (2) .

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Elias Teixeira Krainski - Member / Wagner Hugo Bonat - Member / Cesar Augusto Taconelii - Member / Fernando de Pol Mayer - Member / Walmes Marques Zeviani - Member.

S, T & A Production Rate: 10

2007 - 2011

Projeto TEMÁTICO de pesquisa: Estimabilidade de medidas de associação e de risco em estudos caso-controle espaciais , FAPESP 2006/05920-7.

Description: Os estudos caso-controle constituem a maior contribuição metodológica da epidemiologia, propiciando um modo eficiente de obter estimativas populacionais de risco relativo e fração atribuível. Durante a segunda metade do século XX esses estudos apresentaram notável evolução metodológica, incorporando desenhos amostrais complexos e diversificados, desenvolvendo

modos de estimar risco e significância estatística em desenhos estratificados e multivariados, controlando melhor a interferência de variáveis de confundimento, identificando interações de maneira mais precisa, e chegando inclusive, em situações particulares, a prescindir da amostragem de controles para a obtenção de resultados válidos. Entretanto, apesar do grande desenvolvimento dos sistemas de informação geográfica e da análise espacial de dados ocorridos nos últimos 20 anos, parece ser ainda pequena a incorporação da dimensão espacial aos estudos caso controle, embora despontem trabalhos importantes nessa área, particularmente no campo da epidemiologia ambiental e da chamada epidemiologia geográfica. Face o acima exposto, este é um projeto cujo tema de investigação é um método: o estudo caso-controle espacial, entendido como um estudo caso controle que incorpora explicitamente a localização espacial como covariável de interesse. Tal incorporação, dada a não linearidade da distribuição espacial da maioria das ocorrências de interesse epidemiológico, implica em toda uma mudança do instrumental analítico usual dos estudos caso-controle. Este projeto tem como objetivos, em estudos caso-controle espaciais: a) verificar o comportamento e o significado epidemiológico da função risco relativo espacial em função dos desenhos amostrais case-base sampling , risk-set sampling e amostragem a partir de sobreviventes da doença estudada. b) desenvolver um modelo computacional que, dado um conjunto de parâmetros demográficos, geográficos e epidemiológicos pré-definidos, sob uma estrutura estocástica..
Situation: Completed; Nature: Research.
Participant students: Graduation: (4) / Academic master's degree: (4) / Doctorate: (4) .

Members: Paulo Justiniano Ribeiro Junior - Member / Ricardo Carlos Cordeiro - Coordinator / Trevor Charles Bailey - Member / Laécio Carvalho de Barros - Member / Cláudia Torres Codeço - Member.
Financier(s): Fundação de Amparo à Pesquisa do Estado de São Paulo - Grant.
S, T & A Production Rate: 1

2006 - Current

Estatística Espacial Aplicada

Description: Métodos de estatística aplicáveis a dados espacialmente distribuídos tem sido desenvolvidos a fim de atender a complexidade em estudos onde a localização dos dados tem papel central na análise. Tais métodos se tornaram foco central no desenvolvimento de metodologias estatísticas nos últimos anos devido basicamente a: (i) disponibilidade de bases de dados com

informações cada vez mais precisas e detalhadas, incluindo posições geográficas, (ii) disponibilidade de recursos computacionais capazes de lidar e manipular tais dados, como por exemplo as ferramentas de SIG (Sistemas de Informação Geográfica), (iii) capacidade de processamento de modelos estatísticos complexos e estruturados mesmo em computadores de pequeno porte. A especificidade dos estudos atuais tem gerado desenvolvimentos de métodos estatísticos motivados por situações aplicadas bem como particularização de soluções genéricas a fim de atender objetivos particulares de cada problema. Ao lado do desenvolvimento metodológico é fundamental a disponibilização de rotinas computacionais que permitam o uso de tais metodologias nas análises de dados reais. Em particular a implementação no formato de software livre é desejável permitindo testes, modificações e compartilhamento de informações e colaborações com outros grupos de pesquisa que acabam por levar a implementações mais confiáveis e adaptáveis. O projeto foi reativado com equipe revisada em função dos trabalhos e desenvolvimentos na área por alunos e orientados, bem como equipe de professores. No momento há uma grande ênfase em métodos de inferência para modelos espaciais e em particular geoestatísticos. Extensões e aplicações de modelos contemplam processos pontuais com efeito latente Gaussiano, dados composicionais, geoestatística multivariada e algorítmos para inferência em modelos não Gaussianos. O projeto contempla ainda colaboração com universidades de Throdheim (Noruega) e Odense (Dinamarca)..
Situation: In progress; Nature: Research.
Participant students: Graduation: (1) / Academic master's degree: (2) / Doctorate: (1) .

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Elias Teixeira Krainski - Member / Wagner Hugo Bonat - Member / Fernando de Pol Mayer - Member / Walmes Marques Zeviani - Member / Fernando Gomes Moro - Member / Gabriel Sartori - Member / RIBEIRO, ANGÉLICA MARIA TORTOLA - Member / Kally Chung - Member.
Financier(s): Fundação Araucária de Apoio ao Desenvolvimento Científico e Tecnológico - Grant / Instituto Nacional de Pesquisas Espaciais - Cooperation / Fundo de Defesa da Citricultura - Cooperation.
S, T & A Production Rate: 10

2004 - 2005

Análise Estatística Espacial da Morte Súbita dos Citrus

Description: A morte súbita dos citros (MSC) é uma doença nova na citricultura, atualmente restrita ao sul do Triângulo

Mineiro e norte de São Paulo. Pelos sintomas que ocasiona (declínio rápido das plantas e morte) e por afetar plantas enxertadas sobre limoeiro ?Cravo? (85% das plantas estão sobre este porta-enxerto), a MSC constitui-se numa séria ameaça potencial à citricultura brasileira e toda informação gerada sobre esta doença é de suma importância para o desenvolvimento de estratégias de controle. Numa primeira fase este projeto envolve a análise estatística utilizando técnicas avançadas de estatística espacial das plantas com sintomas de MSC de diferentes talhões para tentar caracterizar os padrões espaço-temporais da doença e simular sua dispersão nos talhões. A análise espaço-temporal de epidemias, em muitos casos, pode ser suficiente para que uma estratégia de combate ao problema seja delineada ou, até mesmo, para que decisões táticas possam ser formuladas. Numa fase subseqüente passamos a uma escala maior, saindo do nível de pomares e passando ao nível de municípios e Estados. Os dados obtidos nos levantamentos detalhados anual da ocorrência de MSC serão analisados por ferramentas de estatística espacial com o objetivo de determinar se a doença está ou não restrita à região sul do Triângulo Mineiro e norte do Estado de São Paulo. Serão investigados diferentes modelos estocásticos na tentativa de identificar possíveis padrões no espalhamento da doença nesta escala, que se detectados, podem permitir elaborar conjecturas sobre para onde a doença está caminhando e qual a sua velocidade. Tais modelos devem contemplar a possibilidade de atualização e revisão dinâmica, na medida que novos dados se tornam disponíveis. Baseando-se no ajuste dos dados disponíveis aos modelos a serem desenvolvidos, poderá ser factível, caso sejam detectados padrões na distribuição espaço-temporal, fazer previsões por meio de técnicas de simulação, para fornecer informações adicionais e.
Situation: Completed; Nature: Research.
Participant students: Graduation: (1) .

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Elias Teixeira Krainski - Member / Renato Beozzo Bassanezi - Member.
Financier(s): Fundo de Defesa da Citricultura - Grant / Fundo de Defesa da Citricultura - Scholarship.
S, T & A Production Rate: 3

2003 - 2010

SAUDAVEL: sistema de apoio unificado para detecção e acompanhamento em vigilância epidemiológica

Description: O projeto SAUDAVEL (Sistema de Apoio Unificado para Detecção e Acompanhamento em Vigilância EpidemioLógica) propõe os uso das

Tecnologias da Informação Espacial no apoio ao Controle de Endemias: Dos "Lugares das Doenças" às "Doenças do Lugar". O objetivo principal do projeto é encontrar as respostas e produzir os instrumentos de Tecnologia da Informação (TI) Espacial, métodos, algoritmos e produtos de software, para dotar os sistemas de vigilância epidemiológica e de controle de endemias, de capacidade de antecipação, a partir da possibilidade de tratar grandes bases de dados espaço-temporais, com dados dos SIS (Sistema de Informação em Saúde) e com dados caracterizadores da população e de seu lugar. O SAUDAVEL insere as TI Espaciais, incluindo-se Bancos de Dados Geográficos, Sistemas de Informações Geográficos e Análise Espaço-Temporal, no contexto do controle de endemias. Transformar pontos e polígonos no espaço e no tempo nos "Lugares das Doenças", determinar sua distribuição, e ao possibilitar integrar mais informações das pessoas do lugar - informação censitária -, e caracterizar melhor estes lugares - informações socioambientais - revelar também as "Doenças do Lugar". Este é um projeto aprovado pela Chamada Conjunta MCT/SEPIN - FINEP - CNPq 01/2002, do Programa de Apoio à Pesquisa e Desenvolvimento e Inovação em Tecnologia da Informação - PDI-TI. O SAUDAVEL opera uma rede inter-institucional, contando com 5 diferentes Instituições: o INPE, através da DPI - Divisão de Processamento de Imagens; a UFMG, através do LESTE - Laboratório de Estatística Espacial; a PRODABEL, Empresa de Informática e Informação do Município de Belo Horizonte (CDE); a UFPR, através do Departamento de Estatística e a FIOCRUZ, através do Departamento de Epidemiologia e Métodos Quantitativos em Saúde da ENSP e do Departamento de Saúde Coletiva do CPqAM - Centro de Pesquisas Aggeu Magalhães. www.dpi.inpe.br/saudavel..
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (5) Doctorate: (5) .

Members: Paulo Justiniano Ribeiro Junior - Member / Renato Martins Assunção - Member / Antônio Miguel Vieira Monteiro - Coordinator / Clodoveu Davis - Member / Marília Sá Carvalho - Member / Wayner Vieira de Souza - Member / Lêda Regis - Member / André Furtado - Member.
Financier(s): Conselho Nacional de Desenvolvimento Científico e Tecnológico - Grant.
S, T & A Production Rate: 2

2003 - 2004

Padrões espaciais da epidemia de pinta preta dos citrus

Description: Existem duas formas de reprodução do patógeno causador da pinta

preta dos citros que definem padrões espaciais na epidemia da doença. Conjectura-se que a primeira forma, os ascósporos, esporo da fase sexual do patógeno, geram um padrão espacial aleatório pois, a disseminação da estrutura reprodutiva ocorre pelo vento. Já os picnidiósporos, relacionados à fase assexual, tenderiam a gerar padrão espacial estruturado pois, a forma de disseminação dá-se por escorrimento da água da chuva ou irrigação e a contaminação de uma árvore para outra ocorre pelo contato com esta água. Este trabalho teve por objetivo aplicar ferramentas estatísticas tais como função {\tt loess}, semivariogramas e função K de Ripley para investigação e compreensão dos padrões espaciais, posteriormente, modelá-los incorporando efeitos aleatórios com estrutura espacial com prioris de campos aleatórios Markovianos e efeitos aleatórios sem estrutura espacial. Os métodos utilizados identificaram padrão espacial sugerindo que os picnidiósporos devem ter importância epidemiológica na incidência da doença nas plantas. A modelagem proposta permitiu avaliar hipóteses sobre os mecanismos predominantes de reprodução do patógeno. O modelo ajustado apresentou forte contribuição do efeito aleatório com estrutura espacial no risco de ocorrer a doença nas plantas de laranja, enquanto que para o risco nos frutos, o efeito aleatório de heterogeneidade não estruturada foi predominante..
Situation: Completed; Nature: Research.
Participant students: Academic master's degree: (1) .

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Glaucy da Conceição Ortiz - Member / Renato Beozzo Bassanezi - Member / Lilian Amorim - Member / Macel Belatto Spósito - Member.
Financier(s): Fundo de Defesa da Citricultura - Grant.
S, T & A Production Rate: 1

Development projects

2006 - 2014

Interface entre a terralib e o ambiente estatístico R

Description: Desenvolver, manter e expandir capacidade de API-aRT entre o R e Tarralib possibilitando inteface entre um ambiente estatístico (R) e outro com recursos de sistemas de informações geográfica (Terralib). O trabalho reflete parceria e colaboração constante entre o LEG (Laboratório de estatística e geoinformação) da UFPR e a DPI (divisão de processamento de imagens) do INPEe desenvolvido dentro do escopo do

PROJETO TEMÁTICO FAPESP: Um ambiente computacional para modelagem de distribuição de espécies, Fapesp ? Processo n. 04/11012-0. http://www.leg.ufpr.br/aRT.
Situation: Completed; Nature: Development.
Participant students: Graduation: (1) / Academic master's degree: (3) / Doctorate: (1) .

Members: Paulo Justiniano Ribeiro Junior - Coordinator / Antônio Miguel Vieira Monteiro - Member / Pedro Ribeiro de Andrade Neto - Member / Simone Bonish - Member / Eduardo Sant´Ana da Silva - Member.
Financier(s): Instituto Nacional de Pesquisas Espaciais - Cooperation / Fundação de Amparo à Pesquisa do Estado de São Paulo - Grant.

Member of editorial board

2019 - Present

Scientific Journal: Revista Brasileira de Estatística (RBEs)

2011 - 2016

Scientific Journal: Biometrics (Washington)

2009 - 2011

Scientific Journal: Biometrics (Washington)

2008 - 2018

Scientific Journal: Revista Brasileira de Estatística

2007 - 2017

Scientific Journal: Revista Brasileira de Biometria

Scientific journal referee

2012 - 2012

Journal: Methods in Ecology and Evolution

2011 - 2011

Journal: Floresta (UFPR. Impresso)

2010 - 2010

Journal: Cadernos de Saúde Pública (ENSP. Impresso)

2010 - 2010

Journal: Cadernos de Saúde Pública (ENSP. Impresso)

2010 - 2010

Journal: Scientia Forestalis (IPEF)

2009 - 2009

Journal: Scientia Forestalis (IPEF)

2009 - 2009

Journal: International journal of health geographics

2009 - 2009

Journal: EnvironMetrics (London. Ont.)

2009 - 2009

Journal: Ciência Rural (UFSM. Impresso)

2009 - 2009

Journal: Bragantia (São Paulo, SP. Impresso)

2009 - 2009

Journal: Revista Brasileira de Biometria

2006 - 2006

Journal: Statistical Modelling

2008 - 2008

Journal: Water Resources Research

2012 - 2012

Journal: Revista Brasileira de Estatística

2006 - 2006

Journal: Revista Brasileira de Estatística

2003 - 2003

Journal: Revista Brasileira de Estatística

2009 - 2009

Journal: Stochastic Environmental Research and Risk Assessment (Print)

2008 - 2008

Journal: Brazilian Journal of Probability and Statistics

2008 - 2008

Journal: Journal of Agricultural, Biological and Environmental Statistics

2002 - 2002

Journal: Applied Statistics (Print)

2003 - 2003

Journal: Ecological Modelling

2007 - 2007

Journal: Ecology (Brooklyn, New York, N.Y.)

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Área: Probability and Statistics / Subarea: Estatística/Specialty: Estatística Espacial.

2.

Major Area: Agrarian Sciences / Área: Agronomy / Subarea: Ciência do Solo/Specialty: Variabilidade Espacial.

3.

Major Area: Agrarian Sciences / Área: Forest Resources and Forest Engineering.

4.

Major Area: Exact and Earth Sciences / Área: Geoscience / Subarea: Meteorologia.

Languages

Spanish

Comprehends Reasonably, Speaks Reasonably, Reads Reasonably, Writes Reasonably.

English

Comprehends Well, Speaks Well, Reads Well, Writes Well.

Scientific, Technological, Artistic and Cultural Production

Full articles published in journals

Sort by

Chronological Order

1.

FERREIRA, G. M. ; KLEINA, H. T. ; BLOOD, R. Y. ; **Ribeiro Junior, Paulo Justiniano** ; DE MIO, LOUISE LARISSA MAY . Dynamics of Xylella fastidiosa and Plum Leaf Scald: Insights from a Long-term Study in Brazilian Orchards. PLANT PATHOLOGY JCR , v. 74, p. 476-492, 2025.

2.

PARREIRA DA SILVA, GUILHERME ; APARECIDO LAUREANO, HENRIQUE ; RASMUSSEN PETTERLE, RICARDO ; **JUSTINIANO RIBEIRO JÚNIOR, PAULO** ; HUGO BONAT, WAGNER . Multivariate Generalized Linear Mixed Models for Count Data. Austrian Journal Of Statistics JCR, v. 53, p. 44-69, 2024. **Citações:** SCOPUS 1

3.

SILVA, G. P. ; LAUREANO, H. A. ; PETTERLE, R. R. ; **Ribeiro Junior, Paulo Justiniano** ; BONAT, W. H. . Multivariate generalized linear mixed models for underdispersed count data. JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION JCR, v. 93, p. 2410-2427, 2023.

4.

LAUREANO, HENRIQUE APARECIDO ; PETTERLE, RICARDO RASMUSSEN ; SILVA, GUILHERME PARREIRA DA ; **Ribeiro Junior, Paulo Justiniano** ; BONAT, WAGNER HUGO . A multinomial generalized linear mixed model for clustered competing risks data. COMPUTATIONAL STATISTICS (ZEITSCHRIFT. INTERNET) JCR, v. 39, p. 1417-1434, 2023.

5.

RIFFEL, V. R. ; Taconeli, C. A. ; **Ribeiro Jr., Paulo J.** . On distribution selection under ranked set sampling schemes. COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION JCR, v. xx, p. 1-21, 2022. **Citações:** WEB OF SCIENCE 1 | SCOPUS 1

6.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; **Ribeiro Junior, Paulo Justiniano** ; BONAT, WAGNER HUGO . A Kronecker-based covariance specification for spatially continuous multivariate data. STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT JCR, v. online, p. 1, 2022. **Citações:** WEB OF SCIENCE 2 | SCOPUS 2

7.

SEHABER, V. F. ; BONAT, W. H. ; DIGGLE, P. J. ; **Ribeiro, P. J.** . A geostatistical spatio-temporal model to non-fixed locations. Stochastic Environmental Research And Risk Assessment JCR, v. 35, p. 165-182, 2021. **Citações:** WEB OF SCIENCE 1

8.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; **Ribeiro Júnior, Paulo Justiniano** ; BONAT, WAGNER HUGO . COMPARISON OF EXPONENTIAL COVARIANCE FUNCTIONS FOR BIVARIATE GEOSTATISTICAL DATA. REVISTA BRASILEIRA DE BIOMETRIA, v. 39, p. 89-102, 2021. **Citações:** SCOPUS 2

9.

DIAS, N. L. C. ; **Ribeiro Junior, Paulo Justiniano** . Practical rules for summing the series of the Tweedie probability density function with high-precision arithmetic. ANAIS DA ACADEMIA BRASILEIRA DE CIÊNCIAS (ONLINE) JCR, v. 91, p. 20180268, 2019.

10.

BASSANEZI, R. B. ; CZERMAINSKI, A. B. C. ; LARANJEIRA, F. F. ; MOREIRA, A. S. ; **Ribeiro, P. J.** ; KRAINSKI, E. T. ; AMORIM, L. . Spatial patterns of the Citrus leprosis virus and its associated mite vector in systems without intervention. PLANT PATHOLOGY JCR, v. 68, p. 85-93, 2019. **Citações:** WEB OF SCIENCE 14 | SCOPUS 16

11.

MAYER, FERNANDO POL ; SANT'ANA, RODRIGO ; **Ribeiro Junior, Paulo Justiniano** . Modelagem da estrutura temporal de capturas incidentais em pescarias comerciais através de modelos hierárquicos bayesianos. REVISTA BRASILEIRA DE BIOMETRIA, v. 37, p. 446-466, 2019. **Citações:** SCOPUS 1

12.

ROESE, A. D. ; **Ribeiro Junior, Paulo Justiniano** ; SILVA, V. P. ; MAY DE MIO, LOUISE L. . Agrosilvopastoral system enhances suppressiveness to soybean damping-off caused by Rhizoctonia solani and alters Fusarium and Trichoderma

August 7, 2025
Curitiba, Paraná, Brazil

To United States Citizenship and Immigration Services,

Dear Sir/Madam,

I am Wagner Hugo Bonat, Professor in the Department of Statistics at the Federal University of Paraná (UFPR). My scientific work encompasses multivariate models, estimating functions, maximum likelihood, spatial statistics, and software development in the R ecosystem. I hold a Bachelor's degree in Statistics from UFPR (2008), a Master's degree in Numerical Methods in Engineering from UFPR (2010), and a Ph.D. in Mathematics and Computer Science from the University of Southern Denmark (2016).

I have known Mr. José Evandeilton Lopes since the advanced undergraduate courses I taught (Statistical Inference and Mixed Models). From that point on, I followed his academic path as his advisor in two decisive stages, his Undergraduate Thesis and his master's thesis in Numerical Methods in Engineering and I continue to follow his development today as a doctoral student.

Since the beginning of our collaboration, Mr. Lopes has stood out for his conceptual mastery and his ability to apply statistical methodologies in a precise and consistent manner. His work is directly aligned with the central themes of my own research, which has enabled us to develop highly relevant joint projects. I highlight his co-authorship of an article on Simplex Regression, his participation in the development of the mcglm package in R, and his preparation of materials for the Symposium on Numerical Methods in Engineering (SMNE). These initiatives reflect not only his methodological rigor, but also his ability to translate theory into practical results, within an environment of genuine academic and professional synergy.

What most stands out to me about José is his methodological rigor and his constant pursuit of excellence. From his Undergraduate Thesis to his master's thesis, "*Regression models for scale data*", his originality and technical sophistication were evident. This solid foundation enabled him to make a successful transition to the private sector, where he applied his academic knowledge to complex problems on an industrial scale. This versatility bridging theory and practice demonstrates not only his technical competence, but also his rare ability to generate value in different contexts.

In terms of skills, Mr. Lopes has strong command of statistical modeling and scientific programming, with solid experience in R and Python. He also distinguishes himself through his contributions to software development: in our laboratory, he participated in discussions and collaborations related to the mcglm package, focused on multivariate responses; in these efforts, he demonstrated careful attention to documentation, reproducible examples, and testing to support its use in applied research. The co-authorship of our article on Simplex models is a clear example of his ability to contribute at every stage of cutting-edge research, from theoretical

formulation to validation and publication. His ability to translate complex statistical concepts into practical and efficient solutions sets him apart from his peers.

I understand that this combination well-founded methodology, scientific software, and experience with high-demand data is particularly valuable in the United States. In academic institutions, research centers, and data-intensive organizations, Mr. Lopes adds value by structuring auditable, reproducible models capable of operating reliably. In regulated environments, his attention to documentation and performance monitoring makes analytical decisions more trustworthy.

In light of the foregoing, I express my support for Mr. Lopes's immigrant visa. He is a professional with solid academic training, consistent technical output, and proven ability to deliver useful statistical solutions in demanding contexts.

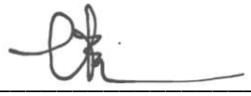
I remain at your disposal for any further clarification, by email at wbonat@ufpr.br or by phone at +55 (41) 3361-3573.

Sincerely,



Prof. Dr. Wagner Hugo Bonat
Professor, Department of Statistics, UFPR / LEG

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: February 20, 2026.

7 de Agosto de 2025
Curitiba, Paraná, Brasil

À United States Citizenship and Immigration Services,

Prezado(a) Senhor(a),

Sou Wagner Hugo Bonat, Professor do Departamento de Estatística da Universidade Federal do Paraná (UFPR). Minha atuação científica abrange modelos multivariados, funções de estimação, máxima verossimilhança, estatística espacial e desenvolvimento de software no ecossistema R. Sou Bacharel em Estatística pela UFPR (2008), Mestre em Métodos Numéricos em Engenharia pela UFPR (2010) e Doutor em Matemática e Ciência da Computação pela University of Southern Denmark (2016).

Conheço o Sr. José Evandeilton Lopes desde as disciplinas avançadas de graduação que ministrei (Inferência Estatística e Modelos Mistos). A partir dali, acompanhei sua trajetória como orientador em duas etapas decisivas, o Trabalho de Conclusão de Curso e a dissertação de mestrado em Métodos Numéricos em Engenharia, e hoje sigo seu desenvolvimento como doutorando.

Desde o início de nossa colaboração, o Sr. Lopes se destacou pelo domínio conceitual e pela capacidade de aplicar metodologias estatísticas de forma precisa e consistente. Sua atuação está diretamente alinhada aos temas centrais da minha própria pesquisa, o que nos permitiu desenvolver trabalhos conjuntos de grande relevância. Destaco a coautoria em um artigo sobre Regressão Simplex, sua participação no desenvolvimento do pacote mcglm em R e a elaboração de materiais para o Simpósio de Métodos Numéricos em Engenharia (SMNE). Essas iniciativas refletem não apenas seu rigor metodológico, mas também sua habilidade em transformar teoria em resultados práticos, em um ambiente de efetiva sinergia acadêmica e profissional.

O que mais me chama a atenção em José é o rigor metodológico e a busca constante pela excelência. Desde seu Trabalho de Conclusão de Curso até sua dissertação de mestrado, *"Modelos de regressão para dados de escala"*, ficou evidente sua originalidade e sofisticação técnica. Essa base sólida lhe permitiu realizar uma transição bem-sucedida para o setor privado, onde aplicou o conhecimento acadêmico a problemas complexos em escala industrial. Essa versatilidade, unindo teoria e prática, demonstra não apenas sua competência técnica, mas também sua rara capacidade de gerar valor em diferentes contextos.

Em termos de habilidades, o Sr. Lopes domina modelagem estatística e programação científica, com prática consolidada em R e Python. Diferencia-se por contribuir também com desenvolvimento de software: em nosso laboratório, participou de discussões e colaborações relacionadas ao pacote mcglm, voltado a respostas multivariadas; nessas frentes, mostrou cuidado com documentação, exemplos reprodutíveis e testes que dão sustentação ao uso em pesquisa aplicada. A coautoria em nosso artigo sobre modelos Simplex é um exemplo claro de sua capacidade de atuar em todas as etapas de uma

pesquisa de ponta, desde a formulação teórica até a validação e publicação. Sua habilidade em traduzir conceitos estatísticos complexos em soluções práticas e eficientes é um diferencial que o distingue de seus pares.

Entendo que esse conjunto, método bem fundamentado, software científico e experiência com dados de alta demanda, é particularmente útil nos Estados Unidos. Em instituições acadêmicas, centros de pesquisa e organizações intensivas em dados, o Sr. Lopes agrega valor ao estruturar modelos auditáveis, reprodutíveis e aptos a operar de forma estável. Em ambientes regulados, sua atenção à documentação e ao acompanhamento do desempenho torna as decisões analíticas mais confiáveis.

Diante do exposto, manifesto apoio ao visto imigratório do Sr. Lopes. Trata-se de um profissional com formação sólida, produção técnica consistente e capacidade comprovada de entregar soluções estatísticas úteis em contextos exigentes.

Permaneço à disposição para quaisquer esclarecimentos, pelo e-mail wbonat@ufpr.br ou pelo telefone +55 (41) 3361-3573.

Atenciosamente,

Prof. Dr. Wagner Hugo Bonat
Professor do Departamento de Estatística, UFPR / LEG



Wagner Hugo Bonat

Address to access this CV: http://lattes.cnpq.br/5010022819750220
ID Lattes: **5010022819750220**
Last updated: 04/25/2024

graduation at Estatística from Universidade Federal do Paraná (2008), master's at Civil Engineering from Universidade Federal do Paraná (2010) and doctorate at PhD Matematics and Computer Science from University of Southern Denmark (2016). He is currently lecturer at Universidade Federal do Paraná. Has experience in Probability and Statistics, focusing on Probability and Statistics, acting on the following subjects: multivariate models, estimating functions, maximum likelihood, spatial statistics and R software. **(Text informed by the author)**

Personal Information

Name

Wagner Hugo Bonat

Bibliographic Citation

BONAT, W. H.;BONAT, WAGNER HUGO;BONAT, WAGNER H.;HUGO BONAT, WAGNER;BONAT, WAGNER H

Lattes iD

http://lattes.cnpq.br/5010022819750220

Nationality

Brazil

Address

Professional Address

Federal University of Paraná, LEG - Laboratory of statistics and geoinformation.
Polytechnic Center, no number
Jardim das Américas
81531990 - Curitiba, PR - Brazil
Telephone: (41) 33613573
Homepage URL: www.leg.ufpr.br/-wbonat

Formal Education/Degree

2014 - 2016

Ph.D. in PhD Matematics and Computer Science.
University of Southern Denmark, SDU, Dinamarca. , Year of degree: 2016.

Advisor: Bent Jorgensen.
Scholarship holder of: Coordination for the Improvement of Higher Education Personnel, CAPES, Brazil.
Keywords: Multivariate covariance generalized linear models; Estimating functions; Non-Gaussian data; Longitudinal data; Genetic data.
Major Area: Exact and Earth Sciences

2008 - 2010

Master in Numerical Methods in Engineering.
Federal University of Paraná, UFPR, Brazil. Year of degree: 2010.
Advisor: Paulo Justiniano Ribeiro Junior.
Keywords: Approximate Bayesian Inference; Markov random Fields; Laplace Approximation; Additively structured regression models; Spatio-Temporal models.
Major Area: Exact and Earth Sciences

2004 - 2008

Graduation in Statistics.
Federal University of Paraná, UFPR, Brazil.
Advisor: Paulo Justiniano Ribeiro Júnior.

Complementary Education

2007 - 2007

Effective Statistical Modelling with R. (Credit hours: 21h).
Federal University of Paraná, UFPR, Brazil.

2007 - 2007

Geostatistical models. (Credit hours: 8h).
Federal University of Santa Maria, UFSM, Brazil.

2007 - 2007

Applied Mixed Models. (Credit hours: 8h).
Federal University of Santa Maria, UFSM, Brazil.

2007 - 2007

BOVESPA MASTER. (Credit hours: 8h).
São Paulo Stock Exchange, BOVESPA, Brazil.

2007 - 2007

Sensory Science. (Credit hours: 8h).
Federal University of Santa Maria,

UFSM, Brazil

Professional Experience

Federal University of Paraná, UFPR, Brazil.

Contract

2010 - Present

Type of contract: Government Employee, Functional Placement: Assistant professor, Credit Hours: 40, Work Schedule: Exclusive Dedication.

Other Information

Lecturer at Department of Statistics.

Curitiba Institute of Urban Research and Planning, IPPUC, Brazil.

Contract

2005 - 2009

Type of contract: Formal employee, Functional Placement: Mid-Level organizational assistant, Credit Hours: 40.

Research projects

2019 - Current

Multivariate marginal models for twin data

Description: Multivariate twin studies are one of the most important tools to assess diseases inheritance as well as to study their genetic and environmental interrelationship. The multivariate analysis of twin data is in general based on structural equation modelling or linear mixed models. Both approaches model the covariance matrix of a multivariate Gaussian distribution to take into account the genetic and environmental covariance induced by the twin design. In spite of flexible for Gaussian data, such approaches are unsuitable for analysing binary, binomial, count and asymmetric continuous traits. In this paper, we propose a flexible statistical modelling framework for analysing multivariate Gaussian and non-Gaussian twin data. Similar to the

generalized linear models, link and variance functions are employed to take into account the non-normality, while the covariance structure induced by the twin design is modelled by means of a linear covariance model. The proposed model class can deal with binary, binomial, count, symmetric and asymmetric continuous traits as well as combination of them in a unified framework. Furthermore, from the marginal specification of our models emerge natural extensions of popular indices such as the bivariate heritability, genetic, environmental and phenotypic correlations to non-Gaussian data. The models are fitted by using an efficient two steps Newton scoring algorithm based on quasi-likelihood and Pearson estimating functions, using only second-moment assumptions. We illustrate the flexibility of the proposed models through simulation studies and data analyses..
Situation: In progress; Nature: Research.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

2017 - Current

Construction of multivariate probability distributions.

Description: In many practical situations, it is common to observe a discrete and/or continuous vector of response variables for each sampling unit. The scientific objectives of these studies are to characterize the dependence of each response variable on a set of explanatory variables and to describe the association structure among response variables. Constructing a statistical model involves choosing a probability distribution; examples include the normal, gamma, inverse normal, and Poisson distributions, among others. However, in studies where multiple response variables are of interest, these distributions are not adequate, as they assume that only a single response variable is of interest. For multivariate data, the multivariate Normal distribution is the most commonly chosen. However, this distribution is suitable only for continuous and symmetric data. In practical situations, however, the response variables may be binary/binomial, counts, proportions, continuous with strong skewness, or even combinations of these. Therefore, the multivariate Normal distribution has limited applicability. The objective of this project is to construct probability distributions for non-Gaussian multivariate random.

variables. In particular, the aim is to obtain multivariate distributions for continuous data with strong skewness and for count data. The statistical literature presents various strategies for constructing multivariate distributions. In this project, quadratic forms based on deviance residuals, in a manner similar to the multivariate Normal distribution, and the extended convolution method will be considered. Applications of multivariate distributions frequently appear, for example, in mining, financial series, medical studies, genetics, epidemiology, entomology, and other fields..

Situation: In progress; Nature: Research. Participant students: Graduation: (2) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .
Members: Wagner Hugo Bonat - Coordinator / Celéstin C. Kokonendji - Member / Luan Demarco Fiorentin - Member / Dennis Santos Leão - Member / Bruna Davies Wundervald - Member.

S, T & A Production Rate: 3.

2016 - Current

Multivariate Covariance Generalized Linear Models

Description: mcglm package fits multivariate covariance generalized linear models. It allows use a different linear predictor for each response variable of a multivariate response. The response variable can be continous or dicrete, like counts and binary and also limited continuos ou discrete/continuous inflated responses. The most important and relevant feature is that many covariance structures can be used to model the relations among variables..
Situation: In progress; Nature: Research.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (1) .

Members: Wagner Hugo Bonat - Coordinator / PETTERLE, RICARDO R - Member / José Evandeilton Lopes - Member / Dennis Santos Leão - Member / HENRIQUE APARECIDO LAUREANO - Member / GUILHERME PARREIRA DA SILVA - Member / LEONARDO COSTA JUSTEN SANTANA - Member / JEFFERSON CÉSAR DOS SANTOS - Member / JOÃO MARCELO RUSZCZAK - Member / KALLY CHUNG - Member / GUILHERME MATOS BARBOSA - Member / LINEU ALBERTO CAVAZANI DE FREITAS - Member / JEAN CARLOS FAOOT MAIA - Member / SUELLEN TEIXEIRA ZAVADZKI DE PAULI - Member / IVAN MOYSES GUIMARÃES - Member / REGINALDO SANTA ROSA - Member.

S, T & A Production Rate: 20 / Number of guidelines: 3

2010 - 2019

SPATIO-TEMPORAL MODELS

Description: Review the literature on spatio-temporal models. Review the literature on approximate Bayesian inference via integrated nested Laplace approximation (INLA). Conduct simulation studies to assess the quality of estimates obtained from the INLA approach for spatio-temporal models. Applications in monitoring systems..
Situation: Completed; Nature: Research.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) I Doctorate: (0) .

Members: Wagner Hugo Bonat – Coordinator / Paulo Justiniano Ribeiro Junior - Member / Elias Teixeira Krainski Member.

S, T & A Production Rate: 16

Scientific journal referee

2014 - Present

Journal: Journal of Applied Statistics

2014 - 2014

Journal: Biometrics

2014 - Present

Journal: Plos One

2017 - Present

Journal: Pakistan Journal of Statistics and Operation Research

2016 - Present

Journal: Journal of Statistical Software

2017 - Present

Journal: COMMUNICATIONS IN STATISTICS-THEORY AND METHODS

2017 - Present

Journal: COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION

2019 - Present

Journal: Journal of Computational and Graphical Statistics

2019 - Present

Journal: JOURNAL OF MULTIVARIATE ANALYSIS

2018 - Present

Journal: STATISTICAL METHODS IN MEDICAL RESEARCH

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Área: Probability and Statistics.

Languages

English

Comprehends Well, Speaks Well, Reads Well, Writes Well.

Awards and Titles

2009

Geostatistical Model Inference for compositional data., Symposium on Applied Geostatistics in Agricultural Sciences.

Scientific, Technological, Artistic and Cultural Production

Bibliographical Production

Full articles published in journals

Sort by

Chronological Order

1.

PARREIRA DA SILVA, GUILHERME ; APARECIDO LAUREANO, HENRIQUE ; RASMUSSEN PETTERLE, RICARDO ; JUSTINIANO RIBEIRO JÚNIOR, PAULO ; **HUGO BONAT, WAGNER** . Multivariate Generalized Linear Mixed Models for

Count Data. Austrian Journal Of Statistics JCR, v. 53, p. 44-69, 2024. **Citations:** SCOPUS 1

2.

DA SILVA, GUILHERME PARREIRA ; LAUREANO, HENRIQUE APARECIDO ; PETTERLE, RICARDO RASMUSSEN ; Ribeiro Jr, Paulo Justiniano ; **BONAT, WAGNER HUGO** . Multivariate generalized linear mixed models for underdispersed count data. JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION JCR, v. XX, p. 1-18, 2023.

3.

LAUREANO, HENRIQUE APARECIDO ; PETTERLE, RICARDO RASMUSSEN ; SILVA, GUILHERME PARREIRA DA ; RIBEIRO JUNIOR, PAULO JUSTINIANO ; **BONAT, WAGNER HUGO** . A multinomial generalized linear mixed model for clustered competing risks data. COMPUTATIONAL STATISTICS JCR, v. 81, p. 1-1, 2023.

4.

ARA, A. ; KATH, G. K. G. ; ANJOS, C. P. ; RUSSO, C. M. ; **BONAT, W. H.** . Data Science: a description of the first data science undergraduate courses in Brazilian universities. REVISTA BRASILEIRA DE ESTATÍSTICA, v. 81, p. 31-61, 2023.

5.

BONAT, WAGNER HUGO; HJELMBORG, JACOB V. B. . Multivariate Generalized Linear Models for Twin and Family Data. BEHAVIOR GENETICS JCR, v. 52, p. 123-140, 2022. **Citations:** WEB OF SCIENCE 2 | SCOPUS 2

6.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; RIBEIRO JUNIOR, PAULO JUSTINIANO ; **BONAT, WAGNER HUGO** . A Kronecker-based covariance specification for spatially continuous multivariate data. STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT JCR, v. 1, p. 1, 2022. **Citations:** WEB OF SCIENCE 2 | SCOPUS 2

7.

CLEMMENSEN, SIGNE B. ; HARRIS, JENNIFER R. ; MENGEL-FROM, JONAS ; **BONAT, WAGNER H.** ; FREDERIKSEN, HENRIK ; KAPRIO, JAAKKO ; HJELMBORG, JACOB V. B. . Familial Risk and Heritability of Hematologic Malignancies in the Nordic Twin Study of Cancer. Cancers JCR, v. 13, p. 3023-3035, 2021. **Citations:** WEB OF SCIENCE 5 | SCOPUS 3

8.

DUARTE, MARINA MELO ; MORAL, RAFAEL DE ANDRADE ; GUILLEMOT, JOANNÈS ; ZUIM, CAROLINE ISAAC FERREIRA ; POTVIN, CATHERINE ; **BONAT, WAGNER HUGO** ; STAPE, JOSÉ LUIZ ; BRANCALION, PEDRO H. S. . High tree diversity enhances light interception in tropical forests. JOURNAL OF ECOLOGY JCR, v. 00, p. 1-15, 2021. **Citations:** WEB OF SCIENCE 14 | SCOPUS 10

9.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; RIBEIRO JÚNIOR, PAULO JUSTINIANO ; **BONAT, WAGNER HUGO** . COMPARISON OF EXPONENTIAL COVARIANCE FUNCTIONS FOR BIVARIATE GEOSTATISTICAL DATA. REVISTA BRASILEIRA DE BIOMETRIA, v. 39, p. 89-102, 2021. **Citations:** SCOPUS 2

10.

PAULI, SUELLEN TEIXEIRA ZAVADZKI DE ; KLEINA, MARIANA ; **BONAT, WAGNER HUGO** . MULTILAYER PERCEPTRON ARTIFICIAL NEURAL NETWORKS: AN APPROACH FOR LEARNING THROUGH THE BAYESIAN FRAMEWORK. REVISTA BRASILEIRA DE BIOMETRIA, v. 39, p. 45-59, 2021. **Citations:** SCOPUS 1

11.

PETTERLE, RICARDO R ; LAUREANO, HENRIQUE A ; DA SILVA, GUILHERME P ; **BONAT, WAGNER H** . Multivariate generalized linear mixed models for continuous bounded outcomes: Analyzing the body fat percentage data. STATISTICAL METHODS IN MEDICAL RESEARCH JCR, v. 30, p. 096228022110432-2633, 2021. **Citations:** WEB OF SCIENCE 2 | SCOPUS 5

12.

PETTERLE, RICARDO R. ; TACONELI, CÉSAR A. ; DA SILVA, JOSÉ L. P. ; DA SILVA, GUILHERME P. ; LAUREANO, HENRIQUE A. ; **BONAT, WAGNER H.** . Unit gamma mixed regression models for continuous bounded data. JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION JCR, v. X, p. 1-19, 2021. **Citations:** WEB OF SCIENCE 1 | SCOPUS 3

13.

SEHABER, V. F. ; **BONAT, W. H.** ; DIGGLE, P. J. ; RIBEIRO, P. J. . A geostatistical spatio-temporal model to non-fixed locations. STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT JCR, v. 35, p. 165-182, 2021. **Citations:** WEB OF SCIENCE 1

14.

KOKONENDJI, CÉLESTIN C. ; **BONAT, WAGNER H.** ; ABID, RAHMA . Tweedie regression models and its geometric sums for (semi-)continuous data. WIREs Computational Statistics, v. X, p. 1-20, 2020. **Citations:** WEB OF SCIENCE 12 | SCOPUS 13

15.

TACONELI, CESAR AUGUSTO ; **BONAT, WAGNER HUGO** . On the performance of estimation methods under ranked set sampling. COMPUTATIONAL STATISTICS JCR, v. X, p. 1-22, 2020. **Citations:** WEB OF SCIENCE 16 | SCOPUS 16

16.

FIORENTIN, L. D. ; **BONAT, W. H.** ; PELISSARI, A. L. ; MACHADO, S. A. ; TEO, S. J. ; ORSO, G. . GENERALIZED LINEAR MODELS FOR TREE SURVIVAL IN LOBLOLLY PINE PLANTATIONS. Cerne JCR, v. 25, p. 347-356, 2020. **Citations:** WEB OF SCIENCE 4

17.

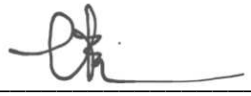
PETTERLE, RICARDO R. ; **BONAT, WAGNER H.** ; SCARPIN, CASSIUS T. ; JONASSON, THAÍSA ; BORBA, VICTÓRIA Z. C. . Multivariate quasi-beta regression models for continuous bounded data. INT J BIOSTAT JCR, v. X, p. XX, 2020. **Citations:** WEB OF SCIENCE 10 | SCOPUS 8

18.

MATTHAEI, JOHANNES ; **BONAT, WAGNER HUGO** ; KERB, REINHOLD ; TZVETKOV, MLADEN VASSILEV ; STRUBE, JAKOB ; BRUNKE, STEFANIE ; SACHSE-SEEBOTH, CORDULA ; SEHRT, DANIEL ; HOFMANN, UTE ; VON BORNEMANN HJELMBORG, JACOB ; SCHWAB, MATTHIAS ; BROCKMÖLLER, JÜRGEN . Inherited and Acquired Determinants of Hepatic CYP3A Activity in Humans. Frontiers in Genetics JCR, v. 11, p. XX, 2020. **Citations:** WEB OF SCIENCE 17 | SCOPUS 15

19.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: February 23, 2026.



Wagner Hugo Bonat

Address to access this CV: http://lattes.cnpq.br/5010022819750220
ID Lattes: **5010022819750220**
Last updated: 25/04/2024

graduation at Estatística from Universidade Federal do Paraná (2008), master's at Civil Engineering from Universidade Federal do Paraná (2010) and doctorate at PhD Matematics and Computer Science from University of Southern Denmark (2016). He is currently lecturer at Universidade Federal do Paraná. Has experience in Probability and Statistics, focusing on Probability and Statistics, acting on the following subjects: multivariate models, estimating functions, maximum likelihood, spatial statistics and R software. **(Text informed by the author)**

Personal Information

Name

Wagner Hugo Bonat

Bibliographic Citation

BONAT, W. H.;BONAT, WAGNER HUGO;BONAT, WAGNER H.;HUGO BONAT, WAGNER;BONAT, WAGNER H

Lattes iD

http://lattes.cnpq.br/5010022819750220

Nationality

Brasil

Address

Professional Address

Universidade Federal do Paraná, LEG - Laboratório de estatística e geoinformação.
Centro Politecnico S/N
Jardim das Américas
81531990 - Curitiba, PR - Brasil
Telephone: (41) 33613573
Homepage URL: www.leg.ufpr.br/~wbonat

Formal Education/Degree

2014 - 2016

Ph.D. in PhD Matematics and Computer Science.
University of Southern Denmark, SDU, Dinamarca. , Year of degree: 2016.

Advisor: Bent Jorgensen.
Scholarship holder of: Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, CAPES, Brasil.
Keywords: Multivariate covariance generalized linear models; Estimating functions; Non-Gaussian data; Longitudinal data; Genetic data.
Major Area: Exact and Earth Sciences

2008 - 2010

Master in Métodos Numéricos em Engenharia.
Universidade Federal do Paraná, UFPR, Brasil. Year of degree: 2010.
Advisor: Paulo Justiniano Ribeiro Junior.
Keywords: Inferência Bayesiana Aproximada; Campos aleatórios Markovianos; Aproximação de Laplace; Modelos de regressão aditivamente estruturados; Modelos espaço-temporais.
Major Area: Exact and Earth Sciences

2004 - 2008

Graduation in Estatística.
Universidade Federal do Paraná, UFPR, Brasil.
Advisor: Paulo Justiniano Ribeiro Júnior.

Complementary Education

2007 - 2007

Effective Statistical Modelling with R. (Credit hours: 21h).
Universidade Federal do Paraná, UFPR, Brasil.

2007 - 2007

Modelos geoestatísticos. (Credit hours: 8h).
Universidade Federal de Santa Maria, UFSM, Brasil.

2007 - 2007

Modelos Mistos Aplicados. (Credit hours: 8h).
Universidade Federal de Santa Maria, UFSM, Brasil.

2007 - 2007

BOVESPA MASTER. (Credit hours: 8h).
Bolsa de Valores de são Paulo, BOVESPA, Brasil.

2007 - 2007

Sensometria. (Credit hours: 8h).
Universidade Federal de Santa Maria,

UFSM, Brasil.

Professional Experience

Universidade Federal do Paraná, UFPR, Brasil.

Contract

2010 - Present

Type of contract: Government Employee, Functional Placement: Professor adjunto, Credit Hours: 40, Regime: Exclusive Dedication.

Other Information

Lecturer at Department of Statistics.

Instituto de Pesquisa e Planejamento Urbano de Curitiba, IPPUC, Brasil.

Contract

2005 - 2009

Type of contract: Celetista formal, Functional Placement: Assistente organizacional pleno, Credit Hours: 40

Research projects

2019 - Current

Multivariate marginal models for twin data

Description: Multivariate twin studies are one of the most important tools to assess diseases inheritance as well as to study their genetic and environmental interrelationship. The multivariate analysis of twin data is in general based on structural equation modelling or linear mixed models. Both approaches model the covariance matrix of a multivariate Gaussian distribution to take into account the genetic and environmental covariance induced by the twin design. In spite of flexible for Gaussian data, such approaches are unsuitable for analysing binary, binomial, count and asymmetric continuous traits. In this paper, we propose a flexible statistical modelling framework for analysing multivariate Gaussian and non-Gaussian twin data. Similar to the

generalized linear models, link and variance functions are employed to take into account the non-normality, while the covariance structure induced by the twin design is modelled by means of a linear covariance model. The proposed model class can deal with binary, binomial, count, symmetric and asymmetric continuous traits as well as combination of them in a unified framework. Furthermore, from the marginal specification of our models emerge natural extensions of popular indices such as the bivariate heritability, genetic, environmental and phenotypic correlations to non-Gaussian data. The models are fitted by using an efficient two steps Newton scoring algorithm based on quasi-likelihood and Pearson estimating functions, using only second-moment assumptions. We illustrate the flexibility of the proposed models through simulation studies and data analyses..
Situation: In progress; Nature: Research.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Wagner Hugo Bonat - Coordinator / Jacob v. B. Hjelmborg - Member.
Financier(s): University of Southern Denmark in Odense - Remuneration.

2017 - Current

Construção de distribuições de probabilidade multivariadas

Description: Em muitas situações práticas é comum observar um vetor discreto e/ou contínuo de variáveis respostas para cada unidade amostral. Os objetivos científicos destes estudos são caracterizar a dependência de cada variável resposta em um conjunto de variáveis explanatórias e descrever a estrutura de associação entre variáveis respostas. A construção de um modelo estatístico envolve a escolha de uma distribuição de probabilidade, exemplos incluem a distribuição normal, gama, normal inversa, Poisson entre outras. Entretanto, para o caso de estudos onde múltiplas variáveis respostas são de interesse, tais distribuições não são adequadas uma vez que tais distribuições assumem que existe apenas uma variável resposta de interesse. Para dados multivariados, a distribuição Normal multivariada é a escolha mais frequente. Porém, tal distribuição é adequada apenas para dados contínuos e simétricos. Em situações práticas, entretanto, as variáveis respostas podem ser, binárias/binomiais, contagens, proporções, contínuas com forte assimetria ou mesmo combinações destas. Sendo assim, a distribuição Normal multivariada é de aplicação limitada. O objetivo deste projeto é construir distribuições de probabilidade para variáveis aleatórias multivariadas não

Gaussianas. Em particular, pretende-se obter distribuições multivariadas para dados contínuos com forte assimetria e contagens. A literatura estatística apresenta diversas estratégias para a construção de distribuições multivariadas. Neste projeto pretende-se considerar formas quadráticas baseadas nos resíduos deviance em um estilo similar a distribuição Normal multivariada e o método da convolução estendida. Aplicações para distribuições multivariadas aparecem com frequência por exemplo, em mineração, séries financeiras, estudos em medicina, genética, epidemiologia, entomologia entre outros..
Situation: In progress; Nature: Research.
Participant students: Graduation: (2) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Wagner Hugo Bonat - Coordinator / Celéstin C. Kokonendji - Member / Luan Demarco Fiorentin - Member / Dennis Santos Leão - Member / Bruna Davies Wundervald - Member.

S, T & A Production Rate: 3

2016 - Current

Multivariate Covariance Generalized Linear Models

Description: mcglm package fits multivariate covariance generalized linear models. It allows use a different linear predictor for each response variable of a multivariate response. The response variable can be continous or dicrete, like counts and binary and also limited continuos ou discrete/continuous inflated responses. The most important and relevant feature is that many covariance structures can be used to model the relations among variables..
Situation: In progress; Nature: Research.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (1) .

Members: Wagner Hugo Bonat - Coordinator / PETTERLE, RICARDO R - Member / José Evandeilton Lopes - Member / Dennis Santos Leão - Member / HENRIQUE APARECIDO LAUREANO - Member / GUILHERME PARREIRA DA SILVA - Member / LEONARDO COSTA JUSTEN SANTANA - Member / JEFFERSON CÉSAR DOS SANTOS - Member / JOÃO MARCELO RUSZCZAK - Member / KALLY CHUNG - Member / GUILHERME MATOS BARBOSA - Member / LINEU ALBERTO CAVAZANI DE FREITAS - Member / JEAN CARLOS FAOOT MAIA - Member / SUELLEN TEIXEIRA ZAVADZKI DE PAULI - Member / IVAN MOYSES GUIMARÃES - Member / REGINALDO SANTA ROSA - Member.

S, T & A Production Rate: 20 / Number of guidelines: 3

2010 - 2019

MODELOS ESPAÇO-TEMPORAIS

Description: Revisar a literatura de modelos espaço-temporais. Revisar a literatura de inferência Bayesiana aproximada via integração aninhada de Laplace. Estudos de simulação para verificar a qualidade das estimativas provenientes da abordagem INLA para modelos espaço-temporais. Aplicações em sistemas de monitoramento..
Situation: Completed; Nature: Research.
Participant students: Graduation: (0) / Specialization: (0) / Academic master's degree: (0) / Professional master's degree: (0) / Doctorate: (0) .

Members: Wagner Hugo Bonat - Coordinator / Paulo Justiniano Ribeiro Junior - Member / Elias Teixeira Krainski - Member.

S, T & A Production Rate: 16

Scientific journal referee

2014 - Present

Journal: Journal of Applied Statistics

2014 - 2014

Journal: Biometrics

2014 - Present

Journal: Plos One

2017 - Present

Journal: Pakistan Journal of Statistics and Operation Research

2016 - Present

Journal: Journal of Statistical Software

2017 - Present

Journal: COMMUNICATIONS IN STATISTICS-THEORY AND METHODS

2017 - Present

Journal: COMMUNICATIONS IN STATISTICS-SIMULATION AND COMPUTATION

2019 - Present

Journal: Journal of Computational and Graphical Statistics

2019 - Present

Journal: JOURNAL OF MULTIVARIATE ANALYSIS

2018 - Present

Journal: STATISTICAL METHODS IN MEDICAL RESEARCH

Areas of Expertise

1.

Major Area: Exact and Earth Sciences / Área: Probability and Statistics.

Languages

English

Comprehends Well, Speaks Well, Reads Well, Writes Well.

Awards and Titles

2009

Inferência Modelo Geoestatístico para dados composicionais., Simpósio de Geoestatística Aplicada em Ciências Agrárias.

Scientific, Technological, Artistic and Cultural Production

Bibliographical Production

Full articles published in journals

Sort by

Chronological Order

1.

PARREIRA DA SILVA, GUILHERME ; APARECIDO LAUREANO, HENRIQUE ; RASMUSSEN PETTERLE, RICARDO ; JUSTINIANO RIBEIRO JÚNIOR, PAULO ; **HUGO BONAT, WAGNER** . Multivariate Generalized Linear Mixed Models for

Count Data. Austrian Journal Of Statistics JCR, v. 53, p. 44-69, 2024. **Citações:** SCOPUS 1

2.

DA SILVA, GUILHERME PARREIRA ; LAUREANO, HENRIQUE APARECIDO ; PETTERLE, RICARDO RASMUSSEN ; Ribeiro Jr, Paulo Justiniano ; **BONAT, WAGNER HUGO** . Multivariate generalized linear mixed models for underdispersed count data. JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION JCR, v. XX, p. 1-18, 2023.

3.

LAUREANO, HENRIQUE APARECIDO ; PETTERLE, RICARDO RASMUSSEN ; SILVA, GUILHERME PARREIRA DA ; RIBEIRO JUNIOR, PAULO JUSTINIANO ; **BONAT, WAGNER HUGO** . A multinomial generalized linear mixed model for clustered competing risks data. COMPUTATIONAL STATISTICS JCR, v. 81, p. 1-1, 2023.

4.

ARA, A. ; KATH, G. K. G. ; ANJOS, C. P. ; RUSSO, C. M. ; **BONAT, W. H.** . Data Science: a description of the first data science undergraduate courses in Brazilian universities. REVISTA BRASILEIRA DE ESTATÍSTICA, v. 81, p. 31-61, 2023.

5.

BONAT, WAGNER HUGO; HJELMBORG, JACOB V. B. . Multivariate Generalized Linear Models for Twin and Family Data. BEHAVIOR GENETICS JCR, v. 52, p. 123-140, 2022. **Citações:** WEB OF SCIENCE 2 | SCOPUS 2

6.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; RIBEIRO JUNIOR, PAULO JUSTINIANO ; **BONAT, WAGNER HUGO** . A Kronecker-based covariance specification for spatially continuous multivariate data. STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT JCR, v. 1, p. 1, 2022. **Citações:** WEB OF SCIENCE 2 | SCOPUS 2

7.

CLEMMENSEN, SIGNE B. ; HARRIS, JENNIFER R. ; MENGEL-FROM, JONAS ; **BONAT, WAGNER H.** ; FREDERIKSEN, HENRIK ; KAPRIO, JAAKKO ; HJELMBORG, JACOB V. B. . Familial Risk and Heritability of Hematologic Malignancies in the Nordic Twin Study of Cancer. Cancers JCR, v. 13, p. 3023-3035, 2021. **Citações:** WEB OF SCIENCE 5 | SCOPUS 3

8.

DUARTE, MARINA MELO ; MORAL, RAFAEL DE ANDRADE ; GUILLEMOT, JOANNÈS ; ZUIM, CAROLINE ISAAC FERREIRA ; POTVIN, CATHERINE ; **BONAT, WAGNER HUGO** ; STAPE, JOSÉ LUIZ ; BRANCALION, PEDRO H. S. . High tree diversity enhances light interception in tropical forests. JOURNAL OF ECOLOGY JCR, v. 00, p. 1-15, 2021. **Citações:** WEB OF SCIENCE 14 | SCOPUS 10

9.

RIBEIRO, ANGÉLICA MARIA TORTOLA ; RIBEIRO JÚNIOR, PAULO JUSTINIANO ; **BONAT, WAGNER HUGO** . COMPARISON OF EXPONENTIAL COVARIANCE FUNCTIONS FOR BIVARIATE GEOSTATISTICAL DATA. REVISTA BRASILEIRA DE BIOMETRIA, v. 39, p. 89-102, 2021. **Citações:** SCOPUS 2

10.

PAULI, SUELLEN TEIXEIRA ZAVADZKI DE ; KLEINA, MARIANA ; **BONAT, WAGNER HUGO** . MULTILAYER PERCEPTRON ARTIFICIAL NEURAL NETWORKS: AN APPROACH FOR LEARNING THROUGH THE BAYESIAN FRAMEWORK. REVISTA BRASILEIRA DE BIOMETRIA, v. 39, p. 45-59, 2021. **Citações:** SCOPUS 1

11.

PETTERLE, RICARDO R ; LAUREANO, HENRIQUE A ; DA SILVA, GUILHERME P ; **BONAT, WAGNER H** . Multivariate generalized linear mixed models for continuous bounded outcomes: Analyzing the body fat percentage data. STATISTICAL METHODS IN MEDICAL RESEARCH JCR, v. 30, p. 096228022110432-2633, 2021. **Citações:** WEB OF SCIENCE 2 | SCOPUS 5

12.

PETTERLE, RICARDO R. ; TACONELI, CÉSAR A. ; DA SILVA, JOSÉ L. P. ; DA SILVA, GUILHERME P. ; LAUREANO, HENRIQUE A. ; **BONAT, WAGNER H.** . Unit gamma mixed regression models for continuous bounded data. JOURNAL OF STATISTICAL COMPUTATION AND SIMULATION JCR, v. X, p. 1-19, 2021. **Citações:** WEB OF SCIENCE 1 | SCOPUS 3

13.

SEHABER, V. F. ; **BONAT, W. H.** ; DIGGLE, P. J. ; RIBEIRO, P. J. . A geostatistical spatio-temporal model to non-fixed locations. STOCHASTIC ENVIRONMENTAL RESEARCH AND RISK ASSESSMENT JCR, v. 35, p. 165-182, 2021. **Citações:** WEB OF SCIENCE 1

14.

KOKONENDJI, CÉLESTIN C. ; **BONAT, WAGNER H.** ; ABID, RAHMA . Tweedie regression models and its geometric sums for (semi-)continuous data. WIREs Computational Statistics, v. X, p. 1-20, 2020. **Citações:** WEB OF SCIENCE 12 | SCOPUS 13

15.

TACONELI, CESAR AUGUSTO ; **BONAT, WAGNER HUGO** . On the performance of estimation methods under ranked set sampling. COMPUTATIONAL STATISTICS JCR, v. X, p. 1-22, 2020. **Citações:** WEB OF SCIENCE 16 | SCOPUS 16

16.

FIORENTIN, L. D. ; **BONAT, W. H.** ; PELISSARI, A. L. ; MACHADO, S. A. ; TEO, S. J. ; ORSO, G. . GENERALIZED LINEAR MODELS FOR TREE SURVIVAL IN LOBLOLLY PINE PLANTATIONS. Cerne JCR, v. 25, p. 347-356, 2020. **Citações:** WEB OF SCIENCE 4

17.

PETTERLE, RICARDO R. ; **BONAT, WAGNER H.** ; SCARPIN, CASSIUS T. ; JONASSON, THAÍSA ; BORBA, VICTÓRIA Z. C. . Multivariate quasi-beta regression models for continuous bounded data. INT J BIOSTAT JCR, v. X, p. XX, 2020. **Citações:** WEB OF SCIENCE 10 | SCOPUS 8

18.

MATTHAEI, JOHANNES ; **BONAT, WAGNER HUGO** ; KERB, REINHOLD ; TZVETKOV, MLADEN VASSILEV ; STRUBE, JAKOB ; BRUNKE, STEFANIE ; SACHSE-SEEBOTH, CORDULA ; SEHRT, DANIEL ; HOFMANN, UTE ; VON BORNEMANN HJELMBORG, JACOB ; SCHWAB, MATTHIAS ; BROCKMÖLLER, JÜRGEN . Inherited and Acquired Determinants of Hepatic CYP3A Activity in Humans. Frontiers in Genetics JCR, v. 11, p. XX, 2020. **Citações:** WEB OF SCIENCE 17 | SCOPUS 15

19.

Exhibit C.II - Second Prong: Proof of Financial Feasibility

PROPERTY APPRAISAL STATEMENT

At the request of Mr. **JOSE EVANDEILTON LOPES**, holder of ID number 04513168439 SESP PR (State Department of Public Safety of Paraná) and CPF number 045.131.684-39, we have conducted an appraisal for the commercialization of the following property:

Registration No. 43.251 from the Real Estate Registry:

PROPERTY – House No. "01" (one), of the "**MONTE LIBANO RESIDENTIAL CONDOMINIUM**," located in this City and Judicial District, the third one counting from the left to the right, for those looking from Rua Shalon, which it faces, borders on the left side with house No. 02 of the same condominium, on the right side it borders with part of lot No. 10, at the back it borders with part of house No. 04 of the same condominium, it has a total built area of 47.97m², a footprint area of 47.97m², which, added to the 49.20m² area, of unbuilt space for exclusive private use, located at the front and back of the residence, designated as garden and backyard and/or uncovered parking space, totaling an area of exclusive private use of 97.17m², plus the common area of 54.32m², designated for the pedestrian access walkway, internal access road, and recreation area, totaling an area of 151.49m², equivalent to the ideal land fraction of 0.0842, this unit having the Tax Identification No. 51.024.0101.001, built on plot No. "11-A" (eleven-A) with an area of **1,800.00m²**, resulting from the unification of lots No. 11 and 12, of **Block No. 29** (twenty-nine), of the "**DEODORO**" Plan, located in the urban area of this City and Judicial District, measuring 24.00 meters fronting Rua Shalon, on the right side when facing the lot from the street it measures 66.00 meters and borders lot No. 10, on the left side when facing the lot from the street it measures 84.00 meters and borders lots No. 08 and 13, at the back it measures 30.00 meters and borders the current Suburban Plan (area belonging to whomever it may concern).

After a detailed analysis of the location, layout, dimensions, and state of conservation, and considering the average market prices in the region, as well as an assessment of the economic feasibility based on the property's characteristics, we conclude that:

Total appraised value: R$220,000.00 (two hundred twenty thousand reais), subject to change.

Piraquara, Friday, August 1, 2025.

Anderson Rubens da Silva - CRECI f 38.547
(CRECI: Regional Council of Real Estate Brokers)

Signature page



Anderson Silva
044.712.879-58
Signer

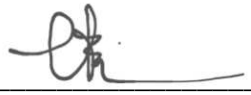
HISTORY

Aug 1, 2025 2:05:41 PM — **Apresenta me Assinaturas** created this document. (Company: APRESENTA.ME TECNOLOGIA E GESTÃO PARA IMOBILIÁRIAS LTDA, CNPJ: 37.456.158/0001-80, Email: assinaturas@apresenta.me, CPF: 044.703.169-46)

Aug 1, 2025 2:06:04 PM — **Anderson Rubens da Silva** *(Email: mkimoveisadm@gmail.com, CPF: 044.712.879-58)* viewed this document via IP address 201.40.212.181 located in Curitiba - Paraná - Brazil

Aug 1, 2025 2:06:08 PM — **Anderson Rubens da Silva** *(Email : mkimoveisadm@gmail.com, CPF: 044.712.879-58)* signed this document via IP address 201.40.212.181 located in Curitiba - Paraná - Brazil

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 12, 2025.

TERMO DE AVALIAÇÃO DE IMÓVEL

A pedido do senhor **JOSE EVANDEILTON LOPES**, inscrito no RG n° 04513168439 SESP PR e portador do CPF sob n° 045.131.684-39, realizamos a avaliação para comercialização do seguinte imóvel:

Matrícula nº 43.251 do Registro de Imóveis de Piraquara:

IMÓVEL – Casa nº "01" (um), do "**CONDOMÍNIO RESIDENCIAL MONTE LIBANO**", situado neste Município e Comarca, a terceira a contar do lado esquerdo para a direita, de quem da Rua Shalon olha, com a qual faz frente, confronta no lado esquerdo com a casa nº 02 do mesmo condomínio, no lado direito confronta com parte do lote nº 10, nos fundos confronta com parte da casa nº 04 do mesmo condomínio, tem a área construída total de 47,97m², possui a área de implantação de 47,97m², que, somada à área de 49,20m², não construída de uso privativo exclusivo, localizada na frente e fundos da residência, destinada a jardim e quintal e/ou estacionamento descoberto, totalizando a área de uso exclusivo privativo de 97,17m², mais a área comum de 54,32m², destinada à calçada de acesso de pedestre, rua interna de acesso e área de recreação, totalizando a área de 151,49m², equivalente à fração ideal do solo de 0,0842, unidade essa com a Indicação Fiscal nº 51.024.0101.001, construída sobre o lote de terreno nº "11-A" (onze-a) com a área de **1.800,00m²**, resultante da unificação dos lotes nºs 11 e 12, da **Quadra nº 29** (vinte e nove), da Planta "**DEODORO**", situado no quadro urbano, neste Município e Comarca, medindo 24,00 metros de frente para a Rua Shalon, pelo lado direito de quem da rua olha o lote mede 66,00 metros e confronta com o lote nº 10, pelo lado esquerdo de quem da rua olha o lote mede 84,00 metros e confronta com os lotes nºs 08 e 13, nos fundos mede 30,00 metros e confronta com atual Planta Suburbana (antiga área a quem de direito).

Após análise detalhada da localização, formato, dimensões, estado de conservação, e considerando a média de preços da região, além de uma avaliação da viabilidade econômica baseada nas características do imóvel, concluímos que:

Valor total avaliado: **R$220.000,00 (duzentos e vinte mil reais)**, sujeito a variações.

Piraquara, sexta-feira, 01 de agosto de 2025.

_____

Anderson Rubens da Silva CRECI f 38.547

Página de assinaturas



Anderson Silva
044.712.879-58
Signatário

HISTÓRICO

01 ago 2025 14:05:41 — **Apresenta me Assinaturas** criou este documento. (Empresa: APRESENTA.ME TECNOLOGIA E GESTAO PARA IMOBILIARIAS LTDA, CNPJ: 37.456.158/0001-80, Email: assinaturas@apresenta.me, CPF: 044.703.169-46)

01 ago 2025 14:06:04 — **Anderson Rubens da Silva** *(Email: mkimoveisadm@gmail.com, CPF: 044.712.879-58)* visualizou este documento por meio do IP 201.40.212.181 localizado em Curitiba - Paraná - Brazil

01 ago 2025 14:06:08 — **Anderson Rubens da Silva** *(Email: mkimoveisadm@gmail.com, CPF: 044.712.879-58)* assinou este documento por meio do IP 201.40.212.181 localizado em Curitiba - Paraná - Brazil

FEDERATIVE REPUBLIC OF BRAZIL
STATE OF PARANÁ

REAL ESTATE REGISTRY
OF THE JUDICIAL DISTRICT OF THE METROPOLITAN REGION OF CURITIBA
COURT OF PIRAQUARA
FRANCISCO JOSÉ BARBOSA NOBRE
Registrar

GENERAL REGISTRY	RECORD 01
REGISTRATION 43.251	INITIALS

PROPERTY - House No. "**01" (one)**, of the "**MONTE LIBANO RESIDENTIAL CONDOMINIUM**," located in this City and Judicial District, the third one counting from the left to the right, for those looking from Rua Shalon, which it faces, borders on the left side with house No. 02 of the same condominium, on the right side it borders with part of lot No. 10, at the back it borders with part of house No. 04 of the same condominium, it has a total built area of 47.97m², a footprint area of 47.97m², which, added to the 49.20m² area, of unbuilt space for exclusive private use, located at the front and back of the residence, designated as garden and backyard and/or uncovered parking space, totaling an area of exclusive private use of 97.17m², plus the common area of 54.32m², designated for the pedestrian access walkway, internal access road, and recreation area, totaling an area of 151.49m², equivalent to the ideal land fraction of 0.0842, this unit having the Tax Identification No. **51.024.0101.001**, built on plot No. "**11-A" (eleven-A)** with an area of **1,800.00m²**, resulting from the unification of lots No. 11 and 12, of Block No. **29 (twenty-nine)**, of the "**DEODORO**" Plan, located in the urban area of this City and Judicial District, measuring 24.00 meters fronting Rua Shalon, on the right side when facing the lot from the street it measures 66.00 meters and borders lot No. 10, on the left side when facing the lot from the street it measures 84.00 meters and borders lots No. 08 and 13, at the back it measures 30.00 meters and borders the current Suburban Plan (area belonging to whomever it may concern).-

OWNER - INCORPORADORA DE IMÓVEIS ASTRONAVE LTDA, a private legal entity, headquartered at Rua Marechal Mallet No. 22, Apartment 202, Juvevê, in Curitiba-Paraná, registered under CNPJ/MF No. 11.055.467/0001-55, represented by its Managing Partner: Arthur Luiz Hatum Neto, Brazilian, married, merchant, holder of ID No. 4.323.769-1- Paraná, registered with CPF/MF No. 814.872.749-04, residing at Rua Marechal Mallet No. 22, Apartment 202, Juvevê, in Curitiba-Paraná.-

PREVIOUS REGISTRATION - Registration No. 42,619 of July 15, 2009, from the General Registry of this Registry Office.-

NOTE - The missing elements in the previous registration (measurements and boundaries) were provided in the submitted deed, by declaration and under the responsibility of the parties, as authorized by Item 16.2.7.1, Section 2, Chapter 16, of the Code of Norms of the Judicial Administrative Department of the State of Paraná. FEES - R$ 6.30 (60 VRC) - Seal: R$ 2.00. I CERTIFY.PIRAQUARA, APRIL 7, 2010. _____ REGISTRAR.-

---

R-1/43.251 - Protocol No. 88,149 of June 14, 2010. Re-presented on 07/02/2010.-
FORM OF TITLE - "**PURCHASE AND SALE**" - Private Instrument Contract for the Purchase and Sale of an Isolated Unit and Loan with Obligations and Chattel Mortgage - Individual Credit Letter - FGTS - Minha Casa, Minha Vida Program - Using Resources from the FGTS Linked Account, executed in Pinhais-PR, on June 2, 2010, with one copy filed at this Registry Office.-
TRANSFEROR - INCORPORADORA DE IMÓVEIS ASTRONAVE LTDA, previously identified, represented by Karla Franzoloso Hatum, Brazilian, married, born on 03/21/1974, attorney, holder of ID/RG No. 5.371.001-8-SSP-Paraná, registered under CPF/MF No. 977.909.319-20, and Arthur Luiz Hatum Neto, Brazilian, married, born on 01/08/1970, legal advisor, holder of ID/RG No. 43237691-SSP- Paraná, registered under CPF/MF No. 814.872.749-04.-
BUYERS - **JOSÉ EVANDEILTON LOPES**, Brazilian, single, born on 03/22/1983, IT technician, holder of ID/RG No. 7.745.220-SSP-Pernambuco, registered under CPF/MF No. 045.131.684-39, residing at Rua Carlos Wellner No. 231, in Curitiba-Paraná; and **MARIA DAS DORES PROCOPIO DA SILVA**, Brazilian, single, born on 06/07/1980, attendant, holder of ID/RG No. 2.057.755-SSP-Alagoas, registered under CPF/MF No. 046.934.064-90, residing at Rua Carlos Wellner No. 231, Orleans, Curitiba- Paraná.-
PRICE - The Purchase and Sale Price is R$ 75,000.00 (seventy-five thousand reais), composed of the installments listed below, and shall be paid to the seller in accordance with the provisions of Clause Four of this Contract: Funds from the buyers' FGTS linked account: R$ 2,568.33; Funds granted by the Severance Indemnity Fund for Employees in the form of a discount:

REGISTRATION No. 43.251

CONTINUED ON THE BACK

14,497.00; Financing granted by the Creditor: R$ 57,934.67.-
CONDITIONS - None.-
DAM/ITBI - 10300/2010.-
FUNREJUS - Exempt under the terms of Art. 3, VII no. 14 of Law No. 12,216 of 07/15/98, amended by Art. 1 of Law 12,604 of 07/02/99.-
DOI - DOI issued by this Registry Office.-
CQ/SRF + CN/FEDERAL - As stated in the referred Contract, the Joint Negative Certificate of Debts Related to Federal Taxes and the Federal Debt was presented, issued on 03/23/2010, under control code No. 8145.C039.E95D.BDA1.-
CND/INSS - As stated in the referred Contract, the Negative Certificate of Debts Related to Social Security Contributions and Third Parties was presented, issued on 12/11/2009, under No. 720592009-14001012.-
FEES - RS 45.28 (431.2 VRC) - Seal: R$2.00.-
I CERTIFY. PIRAQUARA, JULY 8, 2010. _____ REGISTRAR.-

R-2/43.251 - Protocol No. 88,149 of June 14, 2010. Re-presented on 07/02/2010.-
FORM OF TITLE - "**CHATTEL MORTGAGE**" - Private Instrument Contract for the Purchase and Sale of an Isolated Unit and Loan with Obligations and Chattel Mortgage - Individual Credit Letter - FGTS - Minha Casa, Minha Vida Program - Using Resources from the FGTS Linked Account, executed in Pinhais-Paraná, on June 2, 2010, with one copy filed at this Registry Office.-
FIDUCIARY CREDITOR - **CAIXA ECONÔMICA FEDERAL - CEF**, a Financial Institution in the form of a single-member Public Company, registered under CNPJ/MF No. 00.360.305/0001-04, headquartered at Setor Bancário Sul, Block 04, lots 3/4, Brasília-Federal District.-
FIDUCIARY DEBTORS - **JOSE EVANDEILTON LOPES** and **MARIA DAS DORES PROCOPIO DA SILVA**, previously identified.-
AMOUNT - Operation Amount: R$ 72,431.67; Discount: R$ 14,497.00; Debt Amount: R$ 57,934.67.-
TERM - 300 months.-
INTEREST - Nominal 4.5000% per year; and Effective 4.5941% per year.-
AMORTIZATION SYSTEM - SAC (Constant Amortization System).-
NOTE - The parties agree that the value of the property now given as fiduciary collateral, for the purposes of the provisions in item VI of Article 24 of Law 9.514/97, is the amount expressed in the national currency of R$ 79,000.00.-
CONDITIONS - Those set forth in the aforementioned Contract.-
FEES - R$ 45.28 (431.2 VRC) - Seal: R$ 2.00.-
I CERTIFY. PIRAQUARA, JULY 8, 2010. _____ REGISTRAR.-

REAL ESTATE REGISTRY
PIRAQUARA - PARANÁ
I certify that this photocopy is a true reproduction of registration No. **43.251**.
Piraquara, July 8, 2010.
_____
Registrar

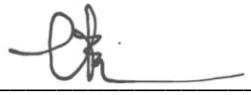
REAL ESTATE REGISTRY
PIRAQUARA - PARANÁ
Avenida Getúlio Vargas No. 165
Piraquara-Paraná - ZIP Code 83301-010
PHONE: (41) 3673-1445

Law: 13.228 of 07/18/2001
FUNARP SEAL
REAL ESTATE REGISTRY
DHI81047
REAL ESTATE REGISTRY
PIRAQUARA - PARANÁ
Francisco Joss Barbosa Nobre
Registrar
Paulo Banhos Doell
Iria Zeschau
Carla Zita Figueiredo
Clerks

REAL ESTATE REGISTRY
PIRAQUARA - PARANÁ
This certificate is valid for only 30 days.

REGISTRATION No.

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 12, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
ESTADO DO PARANÁ

REGISTRO de IMÓVEIS
da COMARCA da REGIÃO
METROPOLITANA de CURITIBA
FORO de PIRAQUARA
FRANCISCO JOSÉ BARBOSA NOBRE
Registrador

REGISTRO GERAL	FICHA 01
MATRÍCULA 43.251	RUBRICA

IMÓVEL – Casa nº "01" (um), do "**CONDOMÍNIO RESIDENCIAL MONTE LIBANO**", situado neste Município e Comarca, a terceira a contar do lado esquerdo para a direita, de quem da Rua Shalon olha, com a qual faz frente, confronta no lado esquerdo com a casa nº 02 do mesmo condomínio, no lado direito confronta com parte do lote nº 10, nos fundos confronta com parte da casa nº 04 do mesmo condomínio, tem a área construída total de 47,97m2., possui a área de implantação de 47,97m2., que somada a área de 49,20m2., não construída de uso privativo exclusivo, localizada na frente e fundos da residência, destinada a jardim e quintal e/ou estacionamento descoberto, totalizando a área de uso exclusivo privativo de 97,17m2., mais a área comum de 54,32m2., destinada a calçada de acesso de pedestre, rua interna de acesso e área de recreação, totalizando a área de 151,49m2., equivalente a fração ideal do solo de 0,0842, unidade essa com a Indicação Fiscal nº **51.024.0101.001**, construída sobre o lote de terreno nº **"11-A" (onze-a)** com a área de **1.800,00m2.**, resultante da unificação dos lotes nºs 11 e 12, da Quadra nº **29 (vinte e nove)**, da Planta **"DEODORO"**, situado no quadro urbano, neste Município e Comarca, medindo 24,00 metros de frente para a Rua Shalon, pelo lado direito de quem da rua olha o lote mede 66,00 metros e confronta com o lote nº 10, pelo lado esquerdo de quem da rua olha o lote mede 84,00 metros e confronta com os lotes nºs 08 e 13, nos fundos mede 30,00 metros e confronta com atual Planta Suburbana (antiga área a quem de direito).-

PROPRIETÁRIA – INCORPORADORA DE IMÓVEIS ASTRONAVE LTDA, pessoa jurídica de direito privado, com sede na Rua Marechal Mallet nº 22, Apto. 202, Juvevê, em Curitiba-PR., inscrita no CNPJ/MF nº 11.055.467/0001-55, representada por seu Sócio Administrador: Arthur Luiz Hatum Neto, brasileiro, casado, comerciante, portador da CI/RG nº 4.323.769-1-PR, inscrito no CPF/MF nº 814.872.749-04, residente na Rua Marechal Mallet nº 22, apto 202, Juvevê, em Curitiba-PR.-

REGISTRO ANTERIOR – Matrícula nº 42.619 de 15 de julho de 2009, do Registro Geral desta Serventia.-

OBSERVAÇÃO – Os elementos omissos no registro anterior (metragens e confrontações) foram supridos no título apresentado, por declaração e responsabilidade das partes, conforme autoriza o Item 16.2.7.1, Seção 2, Cap. 16, do Código de Normas da Corregedoria Geral da Justiça do Estado do Paraná. EMOLUMENTOS – R$ 6,30 (60 VRC) – Selo: R$ 2,00. DOU FÉ. PIRAQUARA, 07 DE ABRIL DE 2010. (a) _____ REGISTRADOR.-

---

R-1/43.251 - Protocolo nº 88.149 de 14 de junho de 2010. Reapr. em 02/07/2010.-
FORMA DO TÍTULO – "**COMPRA E VENDA**" – Contrato por Instrumento Particular de Compra e Venda de Unidade Isolada e Mútuo com Obrigações e Alienação Fiduciária – Carta de Crédito Individual – FGTS – Programa Minha Casa, Minha Vida – Com Utilização dos Recursos da Conta Vinculada do FGTS, firmado em Pinhais-PR., aos 02 de junho de 2010, do qual uma via fica arquivada nesta Serventia.-
TRANSMITENTE - INCORPORADORA DE IMÓVEIS ASTRONAVE LTDA, supra qualificada, representada por Karla Franzoloso Hatum, brasileira, casada, nascida em 21/03/1974, advogada, portadora da CI/RG nº 5.371.001-8-SSP-PR., inscrita no CPF/MF nº 977.909.319-20, e Arthur Luiz Hatum Neto, brasileiro, casado, nascido em 08/01/1970, assessor jurídico, portador da CI/RG nº 43237691-SSP-PR., inscrito no CPF/MF nº 814.872.749-04.-
ADQUIRENTES - **JOSÉ EVANDEILTON LOPES**, brasileiro, solteiro, nascido em 22/03/1983, técnico em informática, portador da CI/RG nº 7.745.220-SSP-PE, inscrito no CPF/MF nº 045.131.684-39, residente na Rua Carlos Wellner nº 231, em Curitiba-PR., e **MARIA DAS DORES PROCOPIO DA SILVA**, brasileira, solteira, nascida em 07/06/1980, atendente, portadora da CI/RG nº 2.057.755-SSP-AL, inscrita no CPF/MF nº 046.934.064-90, residente na Rua Carlos Wellner nº 231, Orleans em Curitiba-PR.-
VALOR – O Valor da Compra e Venda é de R$ 75.000,00 (setenta e cinco mil reais), sendo composto mediante a integralização das parcelas abaixo, e será pago a vendedora em conformidade com o disposto na Cláusula Quarta deste Contrato: Recursos da conta vinculada de FGTS dos compradores: R$ 2.568,33; Recursos concedidos pelo Fundo de Garantia do Tempo de Serviço na forma de desconto:

MATRÍCULA Nº 43.251

SEGUE NO VERSO

14.497,00; Financiamento concedido pela Credora: R$ 57.934,67.-
CONDIÇÕES - Não há.-
DAM/ITBI – 10300/2010.-
FUNREJUS – Isento nos termos do Art. 3°, VII n° 14 da Lei n° 12.216 de 15/07/98, alterado pelo Art. 1° da Lei 12.604 de 02/07/99.-
DOI – Emitida a DOI por esta Serventia.-
CQ/SRF + CN/UNIÃO – Conforme consta no referido Contrato, foi apresentada a Certidão Conjunta Negativa de Débitos Relativos a Tributos Federais e à Dívida Ativa da União emitida em 23/03/2010, sob código de controle n° 8145.C039.E95D.BDA1.-
CND/INSS – Conforme consta no referido Contrato, foi apresentada a Certidão Negativa de Débitos Relativos às Contribuições Previdenciárias e às de Terceiros emitida em 11/12/2009, sob n° 720592009-14001012.-
EMOLUMENTOS – R$ 45,28 (431,2 VRC) – Selo: R$ 2,00.-
DOU FÉ. PIRAQUARA, 08 DE JULHO DE 2010.(a)
REGISTRADOR.-

R-2/43.251 - Protocolo n° 88.149 de 14 de junho de 2010. Reapr. em 02/07/2010.-
FORMA DO TÍTULO – "**ALIENAÇÃO FIDUCIÁRIA**" – Contrato por Instrumento Particular de Compra e Venda de Unidade Isolada e Mútuo com Obrigações e Alienação Fiduciária – Carta de Crédito Individual – FGTS – Programa Minha Casa, Minha Vida – Com Utilização dos Recursos da Conta Vinculada do FGTS, firmado em Pinhais-PR., aos 02 de junho de 2010, do qual uma via fica arquivada nesta Serventia.-
CREDORA FIDUCIÁRIA – **CAIXA ECONÔMICA FEDERAL – CEF.**, Instituição Financeira sob a forma de Empresa Pública, unipessoal, inscrita no CNPJ/MF n° 00.360.305/0001-04, com sede no Setor Bancário Sul, Quadra 04, lotes 3/4, em Brasíli-DF.-
DEVEDORES FIDUCIANTES - **JOSE EVANDEILTON LOPES**, e **MARIA DAS DORES PROCOPIO DA SILVA**, retro qualificados.-
VALOR – Valor da Operação: R$ 72.431,67; Desconto: R$ 14.497,00; Valor da Dívida: R$ 57.934,67.-
PRAZO – 300 meses.-
JUROS – Nominal 4,5000% ao ano; e Efetiva 4,5941% ao ano.-
SISTEMA DE AMORTIZAÇÃO – SAC.-
OBSERVAÇÃO – Concordam as partes em que o valor do imóvel ora dado em garantia fiduciária, para fins do disposto no inciso VI do artigo 24, da Lei 9.514/97, é o expresso em moeda corrente nacional de R$ 79.000,00.-
CONDIÇÕES – Demais constantes do aludido Contrato.-
EMOLUMENTOS – R$ 45,28 (431,2 VRC) – Selo: R$ 2,00.-
DOU FÉ. PIRAQUARA, 08 DE JULHO DE 2010.(a)
REGISTRADOR.-

REGISTRO de IMÓVEIS
PIRAQUARA – PARANÁ
Certifico que a presente fotocópia é reprodução fiel da matrícula n° **43.251**.
Piraquara, 08 de julho de 2010.
Oficial

Lei 13.228 de 16/07/2001
SELO FUNARPEN
REGISTRO DE IMÓVEIS
DHI81047
REGISTRO de IMÓVEIS
PIRAQUARA - PARANÁ
Oficial do Registro
Escreventes

REGISTRO DE IMÓVEIS
PIRAQUARA – PARANÁ
Av. Getúlio Vargas n° 165
Piraquara-PR – CEP 83301-010
FONE: (41) 3673-1445

REGISTRO de IMÓVEIS
PIRAQUARA – PARANÁ
Esta Certidão é válida somente por 30 dias.

MATRÍCULA N°

Currency Converter

bcb.gov.br/conversao

Go to content 1
Go to menu 2
Go to footer 3

Conversion result

Conversion from: Real/BRL (790)
Amount to convert: 220,000.00

To: United States Dollar/USD (220)
Conversion result: 42,606.759

Exchange rate used: 23/02/2026
Rate:
1 Real/BRL (790) = 0.1936671 US Dollar/USD (220)
1 US Dollar/USD (220) = 5.1635 Real/BRL (790)

GovBR

Exhibit C.II - Second Prong: Proof of High Salary

NAME: JOSE EVANDEILTON LOPES
CPF: 045.131.684-39
ANNUAL ADJUSTMENT DECLARATION

INCOME TAX - INDIVIDUAL
TAX YEAR 2025 **CALENDAR YEAR 2024**

TAXPAYER IDENTIFICATION

Name: JOSE EVANDEILTON LOPES CPF: 045.131.684-39
Date of Birth: 03/22/1983
Do you have a spouse or partner? Yes CPF of the Spouse or partner: 046.934.064-90
Were you a resident abroad and became a resident in Brazil in 2024? No
Were there any changes to the registration details? No
Is one of the declarants a person with a serious illness or a physical or mental disability? No

Address: RUA SHALON Number: 799
Unit: HOUSE 01 Neighborhood/District: PLANTA DEODORO
City: PIRAQUARA State: PR
CEP: 83304-260 Area Code/Telephone:
E-mail: Area Code/Mobile: (41) 8840-8938

Occupation Type: 01 - Employee of a private sector company, except financial institutions
Main Occupation: 211 - Mathematician, Statistician, Actuary, and related professions
Type of Declaration: Original Annual Adjustment Declaration
Receipt Number of the last declaration filed in the 2024 tax year: 26.35.94.18.51-74

DEPENDENTS

CODE	NAME	DATE OF BIRTH	CPF
00	MARIA DAS DORES PROCOPIO DA SILVA LOPES	06/07/1980	046.934.064-90
Email :		Mobile :	
Does the dependent live with the taxpayer? No			
21	DAVI PROCOPIO LOPES	08/06/2013	564.528.318-01
Email :		Mobile :	
Does the dependent live with the taxpayer? Yes			
21	LUCAS PROCOPIO LOPES	10/09/2015	564.529.028-30
Email :		Mobile :	
Does the dependent live with the taxpayer? Yes			

TOTAL DEDUCTION WITH DEPENDENTS 6.825,24

ALIMONY RECIPIENTS

No Information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER

(Values in Reais)

NAME OF THE PAYING SOURCE	INCOME RECEIVED FROM LEGAL ENTITY	OFFICIAL SOCIAL SECURITY CONTRIBUTION	WITHHELD TAX	13th SALARY	INCOME TAX WITHHELD ON 13th SALARY
STIX FIDELIDADE E INTELIGENCIA S.A.	131.812,83	9.997,35	22.053,35	7.987,49	1.793,88
CNPJ/CPF: 31.688.927/0001-90					

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER

(Values in Reais)

NAME OF THE PAYING SOURCE	INCOME RECEIVED FROM LEGAL ENTITY	OFFICIAL SOCIAL SECURITY CONTRIBUTION	WITHHELD TAX	13th SALARY	INCOME TAX WITHHELD ON 13th SALARY
BANCO BRADESCO S.A. CNPJ/CPF: 60.746.948/0001-12	5.305,96	561,65	330,42	0,00	0,00
TOTAL	137.118,79	10.559,00	22.383,77	7.987,49	1.793,88

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY DEPENDENTS

No Information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY THE TAXPAYER

No Information

TAXABLE INCOME RECEIVED FROM INDIVIDUALS AND ABROAD BY DEPENDENTS

No Information

EXEMPT AND NON-TAXABLE INCOME

(Values in Reais)

04. Compensation for termination of employment contract, including under the PDV (Voluntary Dismissal Program), and for work-related accidents; and FGTS (Length-of-Service Guarantee Fund) 19.106,08

Beneficiary	CPF	CPF/CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	045.131.684-39	60.746.948/0001-12	BANCO BRADESCO S.A.	19.106,08

13. Income of a partner or owner of a microenterprise or small business opting for the Simples Nacional, except for pro labore, rents, and services rendered 1,00

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	045.131.684-39	42.770.723/0001-10	JL CONSULTORIA EM ESTATISTICA E INTELIGENCIA EMPRESARIAL LTD	1,00

25. Income tax refund from previous calendar years 341,96

TOTAL 19.449,04

INCOME SUBJECT TO EXCLUSIVE/DEFINITIVE TAXATION

(Values in Reais)

01. 13th Salary 7.987,49

06. Income from financial investments 13.327,69

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	045.131.684-39	30.680.829/0001-43	NU FINANCEIRA S.A. - SOCIEDADE DE CREDITO, FINANCIAMENTO E I	0,78
Taxpayer	045.131.684-39	60.701.190/0001-04	ITAU UNIBANCO S.A.	18,95
Taxpayer	045.131.684-39	62.169.875/0001-79	NU INVESTIMENTOS S.A. - CORRETORA DE TITULOS E VALORES MOBIL	13.307,96

11. Profit Sharing or Results Sharing 9.883,11

Beneficiary	CPF	CNPJ of the Paying Source	Name of the Paying Source	Amount
Taxpayer	045.131.684-39	60.746.948/0001-12	BANCO BRADESCO S.A.	9.883,11

TOTAL 31.198,29

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE TAXPAYER (TAX WITH SUSPENDED EXIGIBILITY)

No Information

TAXABLE INCOME RECEIVED FROM LEGAL ENTITY BY THE DEPENDENTS (TAX WITH SUSPENDED EXIGIBILITY)

No Information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE TAXPAYER

No Information

TAXABLE INCOME FROM LEGAL ENTITY RECEIVED CUMULATIVELY BY THE DEPENDENTS

No Information

TAX PAID / WITHHELD

(Values in Reais)

01. Complementary Tax:	0,00
02. Tax paid abroad by the taxpayer and dependents	0,00
Tax due with income abroad	0,00
Tax due without income abroad	0,00
Difference to be considered for tax calculation (legal limit)	0,00
03. Income Tax Withheld at Source (Law 11.033/2004):	0,00
04. Income Tax Withheld at Source for the Taxpayer	22.383,77
05. Income Tax Withheld at Source for the Dependents	0,00
06. Taxpayer's Carnê-Leão	0,00
07. Dependent's Carnê-Leão	0,00

* CARNÊ-LEÃO - (Income tax that must be paid monthly, mandatorily, by individuals residing in Brazil who receive income from another individual or from abroad)

PAYMENTS MADE

(Values in Reais)

CODE	BENEFICIARY NAME	BENEFICIARY CPF/CNPJ	AMOUNT PAID	NON-DEDUCTABLE PORTION
Taxpayer				
21	CENTRO DE DIAGNOSTICO ENDOSCOPICO DE PINHAIS LTDA	21.867.671/0001-24	2.000,00	0,00
Description:				
26	BRADESCO SAUDE S/A	92.693.118/0001-60	122,56	0,00
Description:				
Dependent: LUCAS PROCOPIO LOPES				
26	BRADESCO SAUDE S/A	92.693.118/0001-60	249,31	0,00
Description:				

Dependent: DAVI PROCOPIO LOPES

PAYMENTS MADE

(Values in Reais)

CODE	BENEFICIARY NAME	BENEFICIARY CPF/CNPJ	AMOUNT PAID	NON-DEDUCTABLE PORTION
26	BRADESCO SAUDE S/A	92.693.118/0001-60	129,01	0,00

Description:

DONATIONS MADE

No Information

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
01	12	HOUSE FINANCED IN 2010 THROUGH THE MINHA CASA MINHA VIDA PROGRAM. ALREADY PAID OFF.	87.669,00	87.669,00

105 - Brazil

Municipal Registration (IPTU): 7679

Address: RUA SHALON
No.: 799
Unit: HOUSE 01
Neighborhood: PLANTA DEODORO
City: PIRAQUARA
State: PR ZIP Code: 83304-260
Total Area: 151,5 m²
Acquisition Date: 06/02/2010
Registered at the Registry Office: Yes
Name of the Registry Office: REAL ESTATE REGISTRY OFFICE OF PIRAQUARA/PR
Registration: 43251

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
02	01	CAR FINANCED PARTIALLY. THE DOWN PAYMENT WAS MADE WITH THE PREVIOUS HB20S I OWNED.	125.084,00	125.084,00

105 - Brazil

RENAVAM (National Registry of Motor Vehicles): 01342946640

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5	0,00	8.000,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 62.169.875/0001-79

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5	0,00	11.500,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 62.169.875/0001-79

STATEMENTS OF ASSETS AND RIGHTS (Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 62.169.875/0001-79	0,00	21.000,00
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 62.169.875/0001-79	6.200,00	0,00
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 62.169.875/0001-79	8.942,00	8.942,00
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 62.169.875/0001-79	11.067,54	0,00
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 62.169.875/0001-79	11.992,63	11.992,63
04	02	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 62.169.875/0001-79	14.889,52	14.889,52
04	02	BALANCE IN RDB (Certificate of Deposit) AT NUBANK, BRANCH 00001 ACCOUNT 8066588-5 105 - Brazil Asset or right belonging to: Taxpayer CPF: CNPJ: 30.680.829/0001-43	2.551,60	43.501,26

STATEMENTS OF ASSETS AND RIGHTS (Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	03	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5	20.000,00	0,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 62.169.875/0001-79

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	03	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5	20.000,00	0,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 62.169.875/0001-79

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
04	03	INVESTMENT AT NU INVEST S.A, ACCOUNT NO 8066588-5	20.000,00	20.000,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 62.169.875/0001-79

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	REPORTED BY CNPJ 00.000.000/0001-91	1.550,00	1.550,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 00.000.000/0001-91
Bank: 001 Branch: 2447 Account: 61820-9 Payment Account? No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	REPORTED BY CNPJ 02.332.886/0001-04	1.270,08	1.270,08

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 02.332.886/0001-04
Bank: 102 Branch: 0001 Account: 115763-8 Payment Account? No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	REPORTED BY CNPJ 60.746.948/0001-12	11.934,91	0,00

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 60.746.948/0001-12
Bank: 237 Branch: 1369 Account: 25237-9 Payment Account? No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	BALANCE IN CHECKING ACCOUNT	0,00	6.005,39

105 - Brazil

Asset or right belonging to: Taxpayer CPF:
CNPJ: 60.701.190/0001-04
Bank: 479 Branch: 8777 Account: 25529-3 Payment Account? No

STATEMENTS OF ASSETS AND RIGHTS

(Values in Reais)

Did you update the value of any real estate property and pay the capital gain tax by 12/16/2024 in accordance with Law No. 14.973/2024?	No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
06	01	BALANCE IN CHECKING ACCOUNT - ACCOUNT 0000000093107 - ACCOUNT 0005870298810 - RECOVERED FROM OLD ACCOUNT 00000000931-7	558,68	558,68

105 - Brazil

Asset or right belonging to: Taxpayer CPF:

CNPJ: 00.360.305/0001-04

Bank: 104 Branch: 3915 Account: 000587029881-0 Payment Account? No

GROUP	CODE	DISCLOSURE	STATUS ON 12/31/2023	STATUS ON 12/31/2024
08	02	7.85411828 UNITS OF MATIC AT AN ACQUISITION COST OF R\$ 30.00 TRADED THROUGH NU CRYPTO LTDA.	0,00	7,85

105 - Brazil

Asset or right belonging to: Taxpayer CPF:

Custodian CNPJ:: 44.342.498/0001-46

Self-custodian: No Altcoin Code: MATIC

TOTAL	343.709,96	361.970,41

ENCUMBRANCES AND REAL LIABILITIES

No Information

DONATIONS TO POLITICAL PARTIES AND CANDIDATES FOR ELECTIVE OFFICES

No Information

STATEMENT OF RURAL ACTIVITY – BRAZIL

IDENTIFICATION DATA OF THE EXPLORED PROPERTY – BRAZIL

No Information

INCOME AND EXPENSES – BRAZIL

No Information

CALCULATION OF THE RESULT – BRAZIL

No Information

LIVESTOCK ACTIVITY – BRAZIL

No Information

ASSETS OF RURAL ACTIVITY – BRAZIL

No Information

DEBTS RELATED TO RURAL ACTIVITY – BRAZIL

No Information

STATEMENT OF RURAL ACTIVITY - ABROAD

IDENTIFICATION DATA OF THE EXPLORED PROPERTY - ABROAD

No Information

INCOME AND EXPENSES - ABROAD

No Information

CALCULATION OF THE RESULT - ABROAD

No Information

LIVESTOCK ACTIVITY - ABROAD

No Information

ASSETS OF RURAL ACTIVITY - ABROAD

No Information

DEBTS RELATED TO RURAL ACTIVITY - ABROAD

No Information

STATEMENT OF CAPITAL GAINS CALCULATION

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE - TAXPAYER

NET GAINS OR LOSSES - JAN

No Information

NET GAINS OR LOSSES - FEB

No Information

NET GAINS OR LOSSES - MAR

No Information

NET GAINS OR LOSSES - APR

No Information

NET GAINS OR LOSSES - MAY

No Information

NET GAINS OR LOSSES - JUN

No Information

NET GAINS OR LOSSES - JUL

No Information

NET GAINS OR LOSSES - AUG

No Information

NET GAINS OR LOSSES - SEP

No Information

NET GAINS OR LOSSES - OCT

No Information

NET GAINS OR LOSSES - NOV

No Information

NET GAINS OR LOSSES - DEC

No Information

VARIABLE INCOME - COMMON OPERATIONS/DAY TRADE - DEPENDENTS

No Information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - TAXPAYER

No Information

REAL ESTATE INVESTMENT FUNDS OR IN AGRO-INDUSTRIAL PRODUCTION CHAINS - DEPENDENTES

No Information

DONATIONS DIRECTLY IN THE DECLARATION – ECA (STATUTE OF THE CHILD AND ADOLESCENT)

No Information

DONATIONS DIRECTLY IN THE DECLARATION - ELDERLY

No Information

NAME: JOSE EVANDEILTON LOPES

CPF: 045.131.684-39 **INCOME TAX - INDIVIDUAL**

ANNUAL ADJUSTMENT DECLARATION **TAX YEAR 2025** **CALENDAR YEAR 2024**

SUMMARY — TAXATION USING THE LEGAL DEDUCTION

TAXABLE INCOME

Received from Legal Entity by the taxpayer	137.118,79
Received from Legal Entity by dependents	0,00
Received from Individual/Abroad by the taxpayer	0,00
Received from Individual/Abroad by Dependents	0,00
Received Cumulatively by the taxpayer	0,00
Received Cumulatively by dependents	0,00
Taxable Income from Rural Activity	0,00
TOTAL	137.118,79

DEDUCTIONS

Contributions to the official and closed complementary pension systems referred to in § 15 of Article 40 of the CF (Federal Constitution)/1988 (up to the sponsor limit)	10.559,00
Contribution to the official pension system (Income received cumulatively)	0,00
Contribution to the complementary pension system, including the amount for the closed systems referred to in Article 40, § 15, of the CF (Federal Constitution)/1988, which exceeds the sponsor's limit	0,00
Dependents	6.825,24
Education Expenses	0,00
Medical Expenses	2.500,88
Judicial Alimony	0,00
Alimony by Public Deed	0,00
Judicial Alimony (Income received cumulatively)	0,00
Cash Book	0,00
TOTAL	19.885,12

TAX DUE

Tax Base	117.233,67
Tax Due	21.498,27
Incentive Deduction	0,00
Tax Due I	21.498,27
Tax Due RRA (on received accumulated income)	0,00
Effective Tax Rate (%)	15,67
Total Tax Due	21.498,27

TAX TO BE REFUNDED	885,50
BALANCE OF TAX PAYABLE	0,00

INSTALLMENT PLAN

Installment Amount	0,00
Number of Installments	0

TAX PAID

Tax Withheld at Source by the Taxpayer	22.383,77
Tax Withheld at Source by Dependents	0,00
Taxpayer's Carnê-Leão	0,00
Dependents' Carnê-Leão	0,00
Complementary Tax	0,00
Tax Paid Abroad	0,00
Tax Withheld at Source (Law No. 11.033/2004)	0,00
Tax Withheld RRA	0,00
Total Tax Paid	22.383,77

BANKING INFORMATION

Account type	Pix
Bank	
Branch (without verification digit)	
Account for credit	

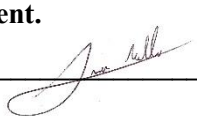
ASSET EVOLUTION

Assets and Rights on 12/31/2023	343.709,96
Assets and Rights on 12/31/2024	361.970,41
Encumbrances and Real Liabilities on 12/31/2023	0,00
Encumbrances and Real Liabilities on 12/31/2024	0,00

OTHER INFORMATION

Exempt and non-taxable income	19.449,04
Income subject to exclusive/definitive taxation	31.198,29
Taxable income - tax with suspended liability	0,00
Judicial Deposits of Tax	0,00
Tax Paid on Capital Gains	0,00
Tax Paid on Capital Gains Foreign Currency - Assets, Rights, and Financial Investments	0,00
Total tax withheld at source (Law No. 11.033/2004), as per the data provided by the taxpayer	0,00
Tax Paid on Variable Income	0,00
Donations to Political Parties and Candidates for Elective Office	0,00
Tax Payable on Capital Gain - Foreign Currency in Cash	0,00
Deferred Tax on Capital Gains	0,00
Tax Due on Capital Gains	0,00
Tax Due on Net Income from Variable Income	0,00
Tax Due on Capital Gains in Foreign Currency - Assets, Rights, and Financial Investments	0,00

I, André Vinícius Inacio Penna Mello, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.



Date: August 21, 2025.

NOME: JOSE EVANDEILTON LOPES
CPF: 045.131.684-39 **IMPOSTO SOBRE A RENDA - PESSOA FÍSICA**
DECLARAÇÃO DE AJUSTE ANUAL **EXERCÍCIO 2025** **ANO-CALENDÁRIO 2024**

IDENTIFICAÇÃO DO CONTRIBUINTE

Nome:	JOSE EVANDEILTON LOPES	CPF:	045.131.684-39
Data de Nascimento:	22/03/1983		
Possui cônjuge ou companheiro(a)?	Sim	CPF do cônjuge ou companheiro(a):	046.934.064-90

Era residente no exterior e passou a ser residente no Brasil em 2024? Não

Houve alteração de dados cadastrais? Não

Um dos declarantes é pessoa com doença grave ou portadora de deficiência física ou mental? Não

Endereço:	RUA SHALON	Número:	799
Complemento:	CASA 01	Bairro/Distrito:	PLANTA DEODORO
Município:	PIRAQUARA	UF:	PR
CEP:	83304-260	DDD/Telefone:	
E-mail:		DDD/Celular:	(41) 8840-8938

Natureza da Ocupação: 01 - Empregado de empresa do setor privado, exceto de instituições financeiras

Ocupação Principal: 211 - Matemático, estatístico, atuário e afins

Tipo de declaração: Declaração de Ajuste Anual Original

Nº do recibo da última declaração entregue do exercício de 2024: 26.35.94.18.51-74

PROTEGIDA POR SIGILO FISCAL

DEPENDENTES

CÓDIGO	NOME	DATA DE NASCIMENTO	CPF
00	MARIA DAS DORES PROCOPIO DA SILVA LOPES	07/06/1980	046.934.064-90
Email :		Celular :	
Dependente mora com o titular da declaração? Não			
21	DAVI PROCOPIO LOPES	06/08/2013	564.528.318-01
Email :		Celular :	
Dependente mora com o titular da declaração? Sim			
21	LUCAS PROCOPIO LOPES	09/10/2015	564.529.028-30
Email :		Celular :	
Dependente mora com o titular da declaração? Sim			

TOTAL DE DEDUÇÃO COM DEPENDENTES 6.825,24

ALIMENTANDOS

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR

(Valores em Reais)

NOME DA FONTE PAGADORA	REND. RECEBIDOS DE PES. JURÍDICA	CONTR. PREVID. OFICIAL	IMPOSTO RETIDO NA FONTE	13º SALÁRIO	IRRF SOBRE 13º SALÁRIO
STIX FIDELIDADE E INTELIGENCIA S.A.	131.812,83	9.997,35	22.053,35	7.987,49	1.793,88
CNPJ/CPF: 31.688.927/0001-90					

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR

(Valores em Reais)

NOME DA FONTE PAGADORA	REND. RECEBIDOS DE PES. JURÍDICA	CONTR. PREVID. OFICIAL	IMPOSTO RETIDO NA FONTE	13º SALÁRIO	IRRF SOBRE 13º SALÁRIO
BANCO BRADESCO S.A.	5.305,96	561,65	330,42	0,00	0,00
CNPJ/CPF: 60.746.948/0001-12					
TOTAL	137.118,79	10.559,00	22.383,77	7.987,49	1.793,88

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA FÍSICA E DO EXTERIOR PELOS DEPENDENTES

Sem Informações

RENDIMENTOS ISENTOS E NÃO TRIBUTÁVEIS

(Valores em Reais)

04. Indenizações por rescisão de contrato de trabalho, inclusive a título de PDV, e por acidente de trabalho; e FGTS — 19.106,08

Beneficiário	CPF	CPF/CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Valor
Titular	045.131.684-39	60.746.948/0001-12	BANCO BRADESCO S.A.	19.106,08

13. Rendimento de sócio ou titular de microempresa ou empresa de pequeno porte optante pelo Simples Nacional, exceto pro labore, aluguéis e serviços prestados — 1,00

Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Valor
Titular	045.131.684-39	42.770.723/0001-10	JL CONSULTORIA EM ESTATISTICA E INTELIGENCIA EMPRESARIAL LTD	1,00

25. Restituição do imposto sobre a renda de anos-calendário anteriores — 341,96

TOTAL — 19.449,04

RENDIMENTOS SUJEITOS À TRIBUTAÇÃO EXCLUSIVA / DEFINITIVA

(Valores em Reais)

01. 13º salário — 7.987,49

06. Rendimentos de aplicações financeiras — 13.327,69

Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Valor
Titular	045.131.684-39	30.680.829/0001-43	NU FINANCEIRA S.A. - SOCIEDADE DE CREDITO, FINANCIAMENTO E I	0,78
Titular	045.131.684-39	60.701.190/0001-04	ITAU UNIBANCO S.A.	18,95
Titular	045.131.684-39	62.169.875/0001-79	NU INVESTIMENTOS S.A. - CORRETORA DE TITULOS E VALORES MOBIL	13.307,96

11. Participação nos lucros ou resultados — 9.883,11

Beneficiário	CPF	CNPJ da Fonte Pagadora	Nome da Fonte Pagadora	Valor
Titular	045.131.684-39	60.746.948/0001-12	BANCO BRADESCO S.A.	9.883,11

PROTEGIDA POR SIGILO FISCAL

TOTAL 31.198,29

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELO TITULAR (IMPOSTO COM EXIGIBILIDADE SUSPENSA)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS RECEBIDOS DE PESSOA JURÍDICA PELOS DEPENDENTES (IMPOSTO COM EXIGIBILIDADE SUSPENSA)

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELO TITULAR

Sem Informações

RENDIMENTOS TRIBUTÁVEIS DE PESSOA JURÍDICA RECEBIDOS ACUMULADAMENTE PELOS DEPENDENTES

Sem Informações

IMPOSTO PAGO / RETIDO (Valores em Reais)

01. Imposto complementar	0,00
02. Imposto pago no exterior pelo titular e pelos dependentes	0,00
Imposto devido com os rendimentos no exterior	0,00
Imposto devido sem os rendimentos no exterior	0,00
Diferença a ser considerada para cálculo do imposto (limite legal)	0,00
03. Imposto sobre a renda na fonte (Lei 11.033/2004)	0,00
04. Imposto retido na fonte do titular	22.383,77
05. Imposto retido na fonte dos dependentes	0,00
06. Carnê-Leão do titular	0,00
07. Carnê-Leão dos dependentes	0,00

PAGAMENTOS EFETUADOS (Valores em Reais)

CÓD.	NOME DO BENEFICIÁRIO	CPF/CNPJ DO BENEFICIÁRIO	VALOR PAGO	PARC. NÃO DEDUTÍVEL
Titular				
21	CENTRO DE DIAGNOSTICO ENDOSCOPICO DE PINHAIS LTDA	21.867.671/0001-24	2.000,00	0,00
Descrição:				
26	BRADESCO SAUDE S/A	92.693.118/0001-60	122,56	0,00
Descrição:				
Dependente: LUCAS PROCOPIO LOPES				
26	BRADESCO SAUDE S/A	92.693.118/0001-60	249,31	0,00
Descrição:				

Dependente: DAVI PROCOPIO LOPES

PROTEGIDA POR SIGILO FISCAL

PAGAMENTOS EFETUADOS

(Valores em Reais)

CÓD.	NOME DO BENEFICIÁRIO	CPF/CNPJ DO BENEFICIÁRIO	VALOR PAGO	PARC. NÃO DEDUTÍVEL
26	BRADESCO SAUDE S/A	92.693.118/0001-60	129,01	0,00

Descrição:

DOAÇÕES EFETUADAS

Sem Informações

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
01	12	CASA FINANCIADA EM 2010 PELO MINHA CASA MINHA VIDA. JA QUITADA.	87.669,00	87.669,00

105 - Brasil

Inscrição Municipal (IPTU): 7679

Logradouro: RUA SHALON
Nº: 799
Comp.: CASA 01
Bairro: PLANTA DEODORO
Município: PIRAQUARA
UF: PR CEP: 83304-260
Área Total: 151,5 m²
Data de Aquisição: 02/06/2010
Registrado no Cartório: Sim
Nome Cartório: CARTORIO DE IMOVEIS DE PIRAQUARA/PR
Matrícula: 43251

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
02	01	CARRO FINANCIADO PARCIALMENTE. A ENTRADA FOI FEITA COM O ANTIGO HB20S QUE EU TINHA.	125.084,00	125.084,00

105 - Brasil

RENAVAM: 01342946640

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5	0,00	8.000,00

105 - Brasil

Bem ou direito pertencente ao: Titular CPF:
CNPJ: 62.169.875/0001-79

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5	0,00	11.500,00

105 - Brasil

Bem ou direito pertencente ao: Titular CPF:
CNPJ: 62.169.875/0001-79

PROTEGIDA POR SIGILO FISCAL

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 62.169.875/0001-79	0,00	21.000,00
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 62.169.875/0001-79	6.200,00	0,00
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 62.169.875/0001-79	8.942,00	8.942,00
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 62.169.875/0001-79	11.067,54	0,00
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 62.169.875/0001-79	11.992,63	11.992,63
04	02	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 62.169.875/0001-79	14.889,52	14.889,52
04	02	SALDO EM RDB NO NUBANK, AGENCIA 00001 CONTA 8066588-5 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 30.680.829/0001-43	2.551,60	43.501,26

PROTEGIDA POR SIGILO FISCAL

DECLARAÇÃO DE BENS E DIREITOS (Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
04	03	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5	20.000,00	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 62.169.875/0001-79				
04	03	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5	20.000,00	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 62.169.875/0001-79				
04	03	APLICACAO NA NU INVEST S.A, CONTA NO 8066588-5	20.000,00	20.000,00
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 62.169.875/0001-79				
06	01	INFORMADO POR CNPJ 00.000.000/0001-91	1.550,00	1.550,00
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 00.000.000/0001-91				
Banco: 001 Agência: 2447 Conta: 61820-9			Conta Pagamento? Não	
06	01	INFORMADO POR CNPJ 02.332.886/0001-04	1.270,08	1.270,08
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 02.332.886/0001-04				
Banco: 102 Agência: 0001 Conta: 115763-8			Conta Pagamento? Não	
06	01	INFORMADO POR CNPJ 60.746.948/0001-12	11.934,91	0,00
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 60.746.948/0001-12				
Banco: 237 Agência: 1369 Conta: 25237-9			Conta Pagamento? Não	
06	01	SALDO EM CONTA CORRENTE	0,00	6.005,39
105 - Brasil				
Bem ou direito pertencente ao: Titular		CPF:		
CNPJ: 60.701.190/0001-04				
Banco: 479 Agência: 8777 Conta: 25529-3			Conta Pagamento? Não	

PROTEGIDA POR SIGILO FISCAL

DECLARAÇÃO DE BENS E DIREITOS

(Valores em Reais)

Atualizou o valor de algum bem imóvel e pagou o ganho de capital até 16/12/2024 de acordo com a Lei nº 14.973/2024?	Não

GRUPO	CÓDIGO	DISCRIMINAÇÃO	SITUAÇÃO EM 31/12/2023	SITUAÇÃO EM 31/12/2024
06	01	SALDO EM CONTA CORRENTE - CONTA 0000000093107 - CONTA 0005870298810 - RECUPERADO DA CONTA ANTIGA 00000000931-7 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ: 00.360.305/0001-04 Banco: 104 Agência: 3915 Conta: 000587029881-0 Conta Pagamento? Não	558,68	558,68
08	02	7.85411828 QUANTIDADES DE MATIC AO CUSTO DE AQUISICAO DE R$ 30,00 NEGOCIADOS PELA NU CRYPTO LTDA. 105 - Brasil Bem ou direito pertencente ao: Titular CPF: CNPJ Custodiante: 44.342.498/0001-46 Autocustodiante: Não Código Altcoin: MATIC	0,00	7,85
TOTAL			343.709,96	361.970,41

DÍVIDAS E ÔNUS REAIS

Sem Informações

DOAÇÕES A PARTIDOS POLÍTICOS E CANDIDATOS A CARGOS ELETIVOS

Sem Informações

PROTEGIDA POR SIGILO FISCAL

DEMONSTRATIVO DE ATIVIDADE RURAL - BRASIL

DADOS E IDENTIFICAÇÃO DO IMÓVEL EXPLORADO - BRASIL

Sem Informações

RECEITAS E DESPESAS - BRASIL

Sem Informações

APURAÇÃO DO RESULTADO - BRASIL

Sem Informações

MOVIMENTAÇÃO DO REBANHO - BRASIL

Sem Informações

BENS DA ATIVIDADE RURAL - BRASIL

Sem Informações

DÍVIDAS VINCULADAS À ATIVIDADE RURAL - BRASIL

Sem Informações

PROTEGIDA POR SIGILO FISCAL

DEMONSTRATIVO DE ATIVIDADE RURAL - EXTERIOR

DADOS E IDENTIFICAÇÃO DO IMÓVEL EXPLORADO - EXTERIOR

Sem Informações

RECEITAS E DESPESAS - EXTERIOR

Sem Informações

APURAÇÃO DO RESULTADO - EXTERIOR

Sem Informações

MOVIMENTAÇÃO DO REBANHO - EXTERIOR

Sem Informações

BENS DA ATIVIDADE RURAL - EXTERIOR

Sem Informações

DÍVIDAS VINCULADAS À ATIVIDADE RURAL - EXTERIOR

Sem Informações

DEMONSTRATIVO DA APURAÇÃO DOS GANHOS DE CAPITAL

Sem Informações

PROTEGIDA POR SIGILO FISCAL

RENDA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - TITULAR

GANHOS LÍQUIDOS OU PERDAS - JAN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - FEV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - ABR

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - MAI

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUN

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - JUL

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - AGO

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - SET

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - OUT

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - NOV

Sem Informações

GANHOS LÍQUIDOS OU PERDAS - DEZ

Sem Informações

RENDA VARIÁVEL - OPERAÇÕES COMUNS/DAYTRADE - DEPENDENTES

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - TITULAR

Sem Informações

FUNDOS DE INVESTIMENTO IMOBILIÁRIO OU NAS CADEIAS PRODUTIVAS AGROINDUSTRIAIS - DEPENDENTES

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - ECA

Sem Informações

DOAÇÕES DIRETAMENTE NA DECLARAÇÃO - IDOSO

Sem Informações

PROTEGIDA POR SIGILO FISCAL

NOME: JOSE EVANDEILTON LOPES
CPF: 045.131.684-39 **IMPOSTO SOBRE A RENDA - PESSOA FÍSICA**
DECLARAÇÃO DE AJUSTE ANUAL **EXERCÍCIO 2025** **ANO-CALENDÁRIO 2024**

RESUMO — TRIBUTAÇÃO UTILIZANDO AS DEDUÇÕES LEGAIS

RENDIMENTOS TRIBUTÁVEIS

Recebidos de Pessoa Jurídica pelo titular	137.118,79
Recebidos de Pessoa Jurídica pelos dependentes	0,00
Recebidos de Pessoa Física/Exterior pelo titular	0,00
Recebidos de Pessoa Física/Exterior pelos dependentes	0,00
Recebidos acumuladamente pelo titular	0,00
Recebidos acumuladamente pelos dependentes	0,00
Resultado tributável da Atividade Rural	0,00
TOTAL	137.118,79

DEDUÇÕES

Contribuições às previdências oficial e complementar fechada de que trata o § 15 do art. 40 da CF/1988 (até o limite do patrocinador)	10.559,00
Contribuição à previdência oficial (Rendimentos recebidos acumuladamente)	0,00
Contribuição à prev. complementar, inclusive o valor para as fechadas de que trata o § 15 do art. 40 da CF/1988 que exceder o limite do patrocinador	0,00
Dependentes	6.825,24
Despesas com instrução	0,00
Despesas médicas	2.500,88
Pensão alimentícia judicial	0,00
Pensão alimentícia por escritura pública	0,00
Pensão alimentícia judicial (Rendimentos recebidos acumuladamente)	0,00
Livro caixa	0,00
TOTAL	19.885,12

IMPOSTO DEVIDO

Base de cálculo do imposto	117.233,67
Imposto devido	21.498,27
Dedução de incentivo	0,00
Imposto devido I	21.498,27
Imposto devido RRA	0,00
Aliquota efetiva (%)	15,67
Total do imposto devido	21.498,27

IMPOSTO A RESTITUIR	885,50
SALDO DE IMPOSTO A PAGAR	0,00

PARCELAMENTO

Valor da quota	0,00
Número de Quotas	0

IMPOSTO PAGO

Imposto retido na fonte do titular	22.383,77
Imp. retido na fonte dos dependentes	0,00
Carnê-Leão do titular	0,00
Carnê-Leão dos dependentes	0,00
Imposto complementar	0,00
Imposto pago no exterior	0,00
Imposto retido na fonte (Lei nº 11.033/2004)	0,00
Imposto retido RRA	0,00
Total do imposto pago	22.383,77

INFORMAÇÕES BANCÁRIAS

Tipo de Conta	Pix
Banco	
Agência (sem DV)	
Conta para crédito	

PROTEGIDA POR SIGILO FISCAL

EVOLUÇÃO PATRIMONIAL

Bens e direitos em 31/12/2023	343.709,96
Bens e direitos em 31/12/2024	361.970,41
Dívidas e ônus reais em 31/12/2023	0,00
Dívidas e ônus reais em 31/12/2024	0,00

OUTRAS INFORMAÇÕES

Rendimentos isentos e não tributáveis	19.449,04
Rendimentos sujeitos à tributação exclusiva/definitiva	31.198,29
Rendimentos tributáveis - imposto com exigibilidade suspensa	0,00
Depósitos judiciais do imposto	0,00
Imposto pago sobre Ganhos de Capital	0,00
Imposto pago Ganhos de Capital Moeda Estrangeira - Bens, direitos e Aplicações Financeiras	0,00
Total do imposto retido na fonte (Lei nº11.033/2004), conforme dados informados pelo contribuinte	0,00
Imposto pago sobre Renda Variável	0,00
Doações a Partidos Políticos e Candidatos a Cargos Eletivos	0,00
Imposto a pagar sobre o Ganho de Capital - Moeda Estrangeira em Espécie	0,00
Imposto diferido dos Ganhos de Capital	0,00
Imposto devido sobre Ganhos de Capital	0,00
Imposto devido sobre ganhos líquidos em Renda Variável	0,00
Imposto devido sobre Ganhos de Capital Moeda Estrangeira - Bens, direitos e aplic. financeiras	0,00

PROTEGIDA POR SIGILO FISCAL

indeed Access

Build a career you love.

What: Cientista de dados | Where: Brasil | Search

Homepage Career navigator Data Scientist Salary

Data Scientist Salary in Brazil

How much does a Data Scientist earn in Brazil?

Average base salary

R$ 89,931 Pay for: Year

The salary range for a data scientist position is R$ 89,931 per hour in Brazil. 419 salaries reported. Updated February 13, 2026.

Data Scientist positions open in Brazil.

See more job openings →

Data Viz (QlikView) Senior (58963)
EVT **4.3** .
São Paulo, SP
15 hours ago

Senior Data Scientist
Vibra Energia **3.2** .
Rio de Janeiro, RJ
15 hours ago

Senior Data Science Analyst
BRB INSURANCE **4** .
Brasilia, DF
15 hours ago

1/2

Cities with the highest salaries for the Data Scientist position near Brazil.

Curitiba, PR
R$ 122,657 per year ›
26 salary reported

Belo Horizonte, MG
R$ 120,970 per year ›
43 salary reported

Osasco, SP
R$ 107,974 per year ›
76 salary reported

Recife, PE
R$ 99,574 per year ›
24 salary reported

Brasilia, DF
R$ 91,274 per year ›
23 salary reported

Barueri, SP
R$ 87,801 per year ›
11 salary reported

Porto Alegre, RS
R$ 86,794 per year ›
33 salary reported

Campinas, SP
R$ 72,612 per year ›
16 salary reported

São Paulo, SP
R$ 65,891 per year ›
51 salary reported

Where does the Data Scientist position pay the most?

Compare salaries for the Data Scientist position in different locations.

Enter the first location.

Enter a location

x

Enter the second location.

Enter a location

Compare

Explore Indeed

Career navigator Career guide Countries
Career navigator Search for jobs About Indeed
Career navigator Salaries Help
Career navigator Indeed Events

Follow us

© 2026 Indeed - Accessibility on Indeed - Privacy Center and Ad Preferences

Currency Converter

bcb.gov.br/conversao

Go to content 1
Go to menu 2
Go to footer 3

Conversion result

Conversion from: Real/BRL (790)
Amount to convert: 141,810.18

To: United States Dollar/USD (220)
Conversion result: 27,463.9644

Exchange rate used: 23/02/2026
Rate:
1 Real/BRL (790) = 0.1936671 US Dollar/USD (220)
1 US Dollar/USD (220) = 5.1635 Real/BRL (790)

GovBR

Currency Converter

bcb.gov.br/conversao

Go to content 1
Go to menu 2
Go to footer 3

Conversion result

Conversion from: Real/BRL (790)
Amount to convert: 89,931.00

To: United States Dollar/USD (220)
Conversion result: 17,416.6747

Exchange rate used: 23/02/2026
Rate:
1 Real/BRL (790) = 0.1936671 US Dollar/USD (220)
1 US Dollar/USD (220) = 5.1635 Real/BRL (790)

GovBR

Exhibit C.II - Second Prong: Other Eligible Evidences

FEDERAL UNIVERSITY OF PARANÁ

ufpr.br/apresentacao



Historic Building | Photo: Marcos Solivan

Presentation

The Federal University of Paraná is the oldest university in Brazil and a symbol of Curitiba. Enveloped in a history of struggles and achievements since 1912 (see History), UFPR is a benchmark in higher education for the state and for Brazil.

A major symbol of Paraná's intellectual life, the University demonstrates its importance and excellence through its undergraduate, specialization, master's, and doctoral programs, which are guided by the principle of the inseparability of Teaching, Research, and Extension. The social function of the university is valued precisely through this tripod, since all teaching, research, and extension activities must return to this community, in the form of knowledge, technology, and culture, the public resources that allow it to exist as a Federal Institution of Higher Education.

In addition to its campuses in Curitiba, UFPR is present in the interior and coastal regions of the state, playing an active role in the socio-economic development and quality of life of the people of Paraná, through access to higher education and the activities carried out by the academic community for the benefit of society in Paraná and Brazil.

CONFE - FEDERAL COUNCIL OF STATISTICS

confe.org.br/apresentacao.htm

Presentation



The CONFE – Federal Council of Statistics – was created, along with the Regional Councils of Statistics, by Law No. 4,739 of July 15, 1965. This Law, which regulates the profession of Statistician, created the CONFE and the Regional Councils of Statistics, with the responsibility of overseeing the practice of the profession. Decree No. 62,497 of April 1, 1968, approving the Regulations for the practice of the profession of Statistician, assigned to the CONFE the supervision of the oversight of professional practice by the competent Regional Council, in addition to the guidance and discipline of professional practice, and the contribution to the improvement of Statistics throughout the National Territory, also being an advisory body to the Government regarding the practice and professional interests of the Statistician. The CONFE, with the participation of the Regional Councils, must work in close collaboration with the bodies of the public, autonomous, semi-public and mixed-economy administration, including banks in which the Federal, State or Municipal Governments are shareholders, in private companies and in companies under government intervention, or in public service concessionaires, aiming to guarantee that the exercise of functions circumscribed to the profession of Statistician, including the teaching of Statistics subjects included in the curricula of courses of this nature in official or recognized establishments, is carried out by a professional duly registered with the Regional and Federal Councils of Statistics. **ORGANIZATION**

The CONFE and the CONREs, together, constitute an autonomous entity with legal personality under public law, with technical, administrative and financial autonomy, and at the time of its creation was linked to the Ministry of Labor and Social Security. The CONFE has as its deliberative body the Plenary and as its executive body the Presidency and others created or to be created, according to the regulations, for the execution of technical and administrative services, indispensable to the fulfillment of the Council's duties. The organization of committees, including those composed of non-statisticians, is permitted for the execution of specific tasks or to achieve purposes that do not justify the creation of a permanent service. **COMPOSITION**

The CONFE is composed of 9 (nine) full members and an equal number of alternates, all elected

by the electoral representatives of the Unions, Professional Associations of Statisticians, and Regional Councils of Statistics. **TERM AND ELECTIONS**
The term of office for CONFE members and their alternates will be 3 (three) years, with reelection permitted. The renewal of one-third of the CONFE members and their alternates will take place annually. The call for elections will be made by CONFE, within 30 (thirty) days before the end of the term. The elections of CONFE members and their respective alternates will be carried out by representatives of the Unions, Professional Associations of Statisticians, and Regional Councils of Statistics, previously accredited, in a number of 2 (two), who must be members of their organization, in full enjoyment of their rights as members. **FINANCIAL RESOURCES**
The financial resources of CONFE are derived from: 20% (twenty percent) of the fees, emoluments, fines or any other charges or collections made by the CONREs;
donations and legacies;
subsidies from public authorities;
other patrimonial income. **ATTRIBUTIONS**
To keep its internal regulations up to date;
To promote studies and campaigns in the development and rationalization of Statistics;
To prepare, annually, a program of activities defined in the Professional Regulations, a program that will also serve as a basis for all Regional Councils;
To guide and discipline the professional practice and supervise the respective inspection throughout the national territory;
To prepare its own budget proposal and that of the Regional Councils, with the elements provided by them, as well as their subsequent amendments; to pronounce on additional credits and to review the accounts of the financial year;
To authorize operations relating to changes in assets;
To organize the Regional Councils (CONRE), establishing their composition, jurisdiction and the method of election of their members;
To examine and approve the internal regulations of the CONREs, being able to modify them as necessary, in order to maintain the respective unity of action, as well as to review their accounts and annual reports;
To be aware of doubts raised by the CONREs and to resolve them;
To judge, in the last instance, appeals against decisions of the CONREs, except, regarding penalties, as provided in a specific article of the Professional Regulations;
Maintain an up-to-date Professional Code of Ethics;
Function as the superior court of Professional Ethics;
Organize and maintain an updated register of registered members and periodically publish the list of registered members;
Propose to public authorities modifications that become convenient to improve legislation concerning professional practice;
Deliberate on issues arising from the exercise of auxiliary activities of the Statistician's specialty;
Establish other measures dictated by experience or pressing need and deliberate on cases not covered in the Regulations of the Profession. Click hereand read the President's Message.

About Us - ABE

June 26, 2023

The **Brazilian Statistical Association** was created in 1984, after several years of fruitful discussion about its viability and opportunity by the national statistical community. Its establishment arose naturally from the holding of the National Symposia on Probability and Statistics, which began in 1974. During this period, from its founding to the present day, the statistical community has experienced significant growth, both academically and professionally.

Today we have a highly productive scientific community of recognized international value. This scientific community coexists harmoniously with a job market that is becoming increasingly selective and demanding of sophisticated techniques, as is the case, for example, in the areas of Finance, Epidemiology, and Quality and Process Control, among others.

Download Our Bylaws

ABE Activities

In order to encourage integration among its members, ABE carries out several activities.

The newsletter is published to disseminate the activities of the association, other centers in the country and the world, as well as to promote discussion of topics relevant to the profession.

It organizes other national meetings such as the School of Time Series and Econometrics (ESTE), and the School of Regression Models (EMR);

It publishes, jointly with IBGE, the Brazilian Journal of Statistics (RBE);

Organizes the SINAPE – National Symposium on Probability and Statistics every two years;

Publishes the Brazilian Journal of Probability and Statistics (BJPS) twice a year (June and December);

It sponsors other meetings, such as: the Brazilian Meeting on Bayesian Statistics (EBEB) and other regional events.

Agreements and Partners

ABE maintains a reciprocity agreement with the scientific societies listed below.



CLATS







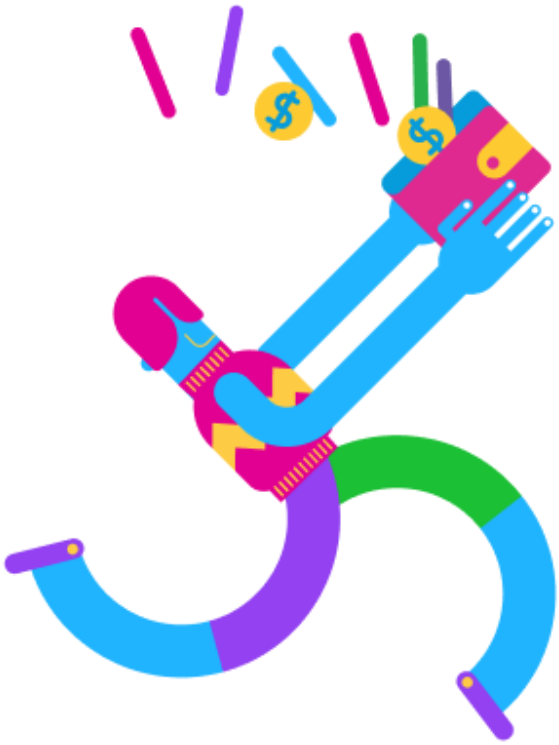





R
B
R
A
S

Stix

soustix.com.br/sobre-a-stix



About Stix

Stix is the place for major brands.

We are the first loyalty program ecosystem in Brazil. A company created with care by GPA and RD Saúde.

You collect Stix by buying from major brands.

Buying a joint from online stores

Here you can collect many Stix by purchasing them via Stix.

And it also uses points from your bank.

Pay with points

Exchange your Stix for prizes.

1
2
Choose the prize you want: products, gift vouchers, or even make donations.

3
Tap to exchange and confirm! Read the withdrawal instructions and you're done!

Or you can pay with points at major Stix brand stores.

1
Before paying for your purchases at the checkout, please provide your CPF (Brazilian tax identification number).

2
If the benefit is available, you will be informed of the amount in reais available for exchange.

3
To confirm the exchange, enter your authorization code and you're done!

Learn more

The benefits of using Stix are many!

You collect or exchange stickers at major brands.

Your Stix only expires once a year, always in September.

Send Stix to friends and family for free.

The value of a Stix in the exchange is always the same. 100 Stix = 1 Real.

Register

Download the Stix app or visit the website and create your account.

I want to register now.
Download the Stix app

Available in stores:

For Android
For iPhone
If you prefer, download the app using the QR code.

Get to know GPA

gpabr.com/conheca-o-gpa

base.digital October 29, 2024

Home >



We are one of the largest food retail groups in Brazil.
For seven decades, we have worked to be the best choice for our customers and a source of pride for our teams, through our strategy of diversification and integration of renowned brands.

Our multi-format business model caters to the specific needs of different profiles of Brazilians. Through our physical stores, websites, or apps, we are always available, wherever and whenever the customer needs us.

Nourishing Dreams and Lives is our Purpose, and also a manifestation of the respect we have for people and for food. This is what drives us and broadens the meaning of everything we do at GPA.


Pão de Açúcar


minuto
Pão de Açúcar



Follow Pão de Açúcar on social media.

www.paodeacucar.com

@paodeacucar

Sugarloaf Mountain

Sugarloaf Mountain

Sugarloaf Mountain

@paodeacucar





Stix

CULTURE

PURPOSE

Nourishing dreams and lives

MISSION

To be the benchmark in food retail through the experience we provide, our strong and admired brands, and the results we deliver.



Watch on YouTube


ALIMENTO




Na Loja,
no Site
e no App
veículo
100%
elétrico



Learn more





1948

Start of GPA

Valentim dos Santos Diniz opens the Pão de Açúcar pastry shop in São Paulo. The name is a tribute to the country that welcomed him.



1959

The first supermarket

The first store of the Pão de Açúcar chain opens.



1969

Network on the Rise

By the end of the decade, GPA had more than 60 stores in 17 cities.



1971

Jumbo Hypermarkets

Launch of Jumbo, the Group's first hypermarket, in the ABC region of São Paulo.



1976

New Businesses

In the 1970s, GPA invested in various business sectors and acquired Eletroradiobraz, which led to the creation of the electronics segment.



1979

New Network

Inauguration of Minibox, with a concept of minimalist stores, a reduced number of items and competitive prices, and of Superbox.



1980

Acquisitions

Acquisition of the Superbom, Peg-Pag and Mercantil supermarket chains, as well as stores from Bazar 13 and the Morita chain.



1989

Extra: New Flag

Creation of Extra stores to compete in the hypermarket sector.



1993

The first ombudsman for Brazilian retail.

Showing strong signs of growth, GPA reinforces its innovative positioning and begins to operate with strong market differentiators.



1995

Initial Public Offering (IPO) and Listing on the Stock Exchange

Organization of the initial public offering of shares.



1996

Growth

Inauguration of the distribution center on Via Anhanguera (Jundiaí) with 800,000 m² of built area and a 130,000 m² plot of land. It is the second largest warehouse in the world, second only to the Coca-Cola Company's warehouse in Atlanta, USA.



1999

Casino Group

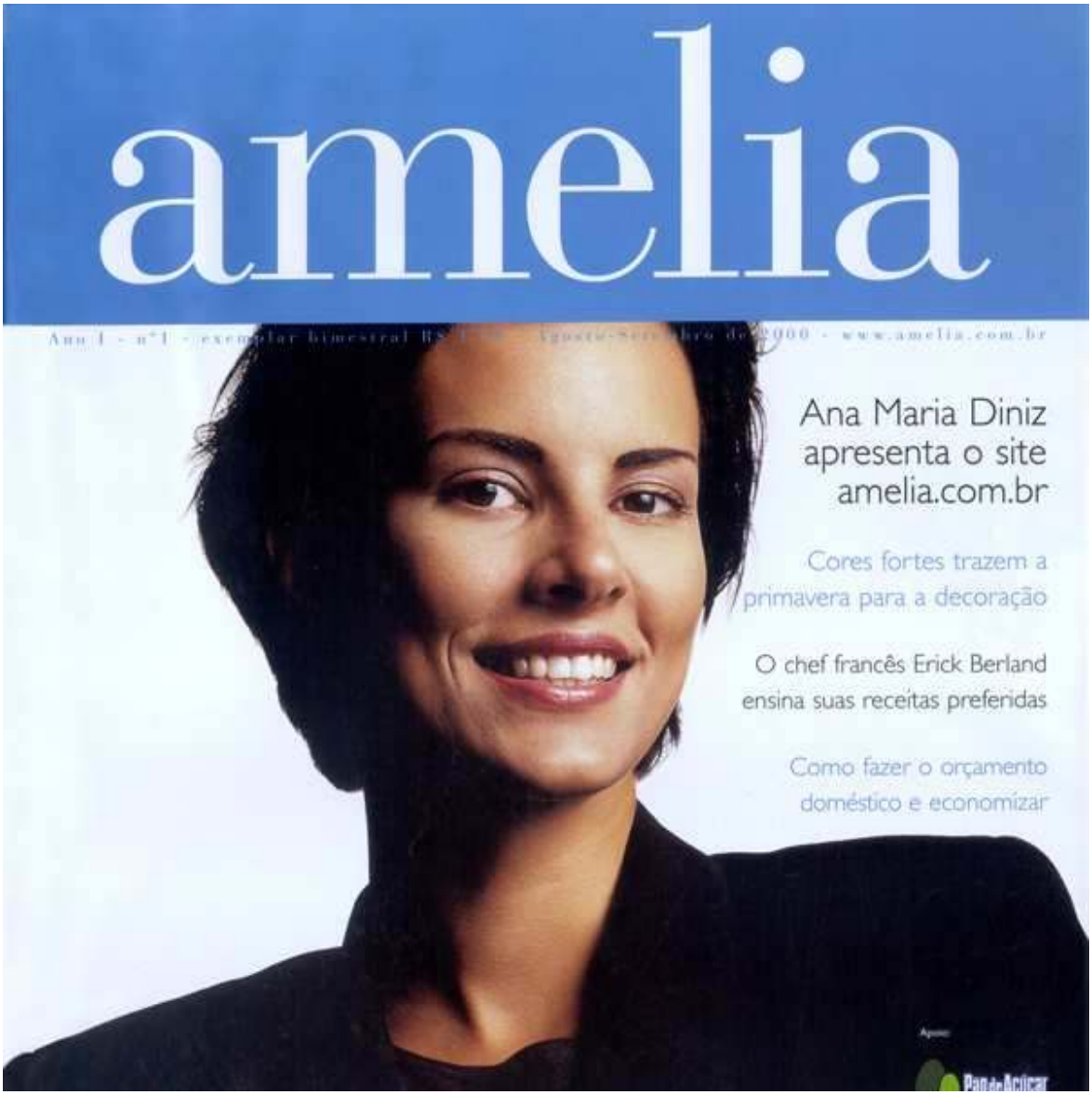
The Casino Group acquires a significant 25% stake in the Company's total capital. The partnership provides resources for the continued expansion of GPA, as well as the exchange of know-how between the companies.



2000

Sugarloaf Mountain More

Launch of Pão de Açúcar Mais, the first loyalty program in Brazilian retail.



2000

Amelia.com.br

All of the Group's online services are consolidated into a single website, amelia.com.br.



2002

Drugstores

The group enters the drugstore business with the opening of its first two stores inside hypermarkets in São Paulo.



2004

Stations

The first Extra gas station was inaugurated in the parking lot of the Extra supermarket in Mogi das Cruzes.



2007

Wholesale

GPA partners with Assaí Atacadista to operate in the self-service wholesale segment, which showed strong signs of growth in the country.



2009

Largest retail group in Brazil

GPA and Casas Bahia join forces to create the largest retail group in Brazil.



2009

GPA Malls

The company created GPA Malls to prospect, negotiate, and enable the implementation of new stores, adding innovative real estate solutions.



2011

Local Business

The BU Proximity operation begins with the conversion of Extra Fácil to Mini Extra.



2012

Casino takes control of GPA.

The Casino Group becomes the sole controlling shareholder of GPA. The Group consolidates its position as the largest retailer in Latin America, operating under the brands Pão de Açúcar, Extra (Extra Hiper, Extra Supermercado, Mini Extra, Posto Extra and Drogaria Extra) and Assaí Atacadista (wholesale), Pontofrio and Casas Bahia (electronics, appliances and furniture) and Nova Pontocom (e-commerce).



2014

Launch of Clube Extra

Creation of the Clube Extra loyalty program.



2014

Launch of the Sugarloaf Minute

Launch of Minuto Pão de Açúcar as part of the Proximity format.



2018

Launch of "My Awards"

The feature offers rewards to Pão de Açúcar Mais and Clube Extra customers through the loyalty program apps.



2018

Launch of the Mercado Extra brand

Mercado Extra is a supermarket model entirely focused on the needs of customers seeking convenience and quality. The brand boasts reinforced service teams in all areas, especially in the butcher and fishmonger sections, which offer a wide variety of meats and cuts, and in the bakery, which produces fresh and delicious recipes daily. The store also has a grocery area with attractive prices and a complete selection of exclusive brands.



2018

Launch of the Compre Bem brand

The Compre Bem supermarket aimed to operate in a regional format, closer to consumers and offering a shopping experience for the neighborhood. The stores had around 7,000 items, including fresh produce, perishables, as well as a butcher shop and bakery.



2018

GPA celebrates 70 years



2019

Payment and delivery options

We have implemented several innovations to ensure speed and efficiency in our customer service. These include self-checkout, pre-scanning, Scan and Go, Shop and Go, Delivery Express, and Fast Pass Assaí.



2019

GPA sells its entire stake in Via Varejo.

As part of our strategy to focus on the food business, we sold our entire stake in Via Varejo.



2019

Stix Loyalty

Creation of the first Brazilian coalition program, based on a partnership between GPA and Raia Drogasil, to offer a platform of products and services for accumulating and redeeming points.



2020

New Market

In March, we completed the process of migrating our shares to the Novo Mercado, a segment of B3 with the highest standards of corporate governance. With the migration, GPA's share capital traded on the stock exchange now consists solely of shares with voting rights, known as common shares (ON).



2021

New Strategy

We made the strategic decision to close the Group's hypermarket business, selling 70 Extra Hiper stores to the Assaí chain, also part of the Casino Group. With this, we accelerated our expansion plan focusing on premium and convenience store brands, and on leadership in online grocery retail.



2021

Launch of Pão de Açúcar Fresh

In October, we launched the Group's new convenience store brand: Pão de Açúcar Fresh. This format specializes in fresh and perishable foods, and the store offers a complete assortment of fruits, vegetables, and greens, including common, organic, and exotic items, as well as ready-to-eat fruits and ready-to-go vegetables. The first store is located in the city of São Caetano do Sul, in the ABC Paulista region.



2021

Partnership with Last Millers

To be where the customer is, we strengthened our delivery network through partnerships with Mercado Livre, Ifood Mercado, and Cornershop. These partnerships enable direct purchases on these platforms and increase the reach of the Group's digital sales.



2022

Meeting the target for reducing greenhouse gas emissions.

By modernizing the engine rooms and refrigeration equipment, and by conducting regular inspections and maintenance to identify and prevent leaks, we reduced scope 1 and 2 greenhouse gas emissions by 41.2%. This allowed us to anticipate and surpass our target of a 38% reduction by 2030 (base year 2015).



2022

Partnerships for social products

We launched the first social product with 100% of the profits reinvested: the Qualitá cassava flour biscuit, in partnership with Gerando Falcões, an organization that works in a network to accelerate the impact of leaders in favelas across Brazil.

1959



PRÊMIO EXCELÊNCIA EM MARCA PRÓPRIA

a maior premiação de produtos exclusivos do Brasil

O ESTADÃO paladar

SELO RA 1000

OS MAIS AMADOS DE SP 2023


TOP OF MIND
A TRIBUNA


2024
FOLHA
O MELHOR DE
são paulo
10 ANOS
serviços
Datafolha

Nossa História | Droga Raia

drogaraia.com.br/nossa-historia



Currently, Droga Raia has over 600 stores spread throughout Brazil and is part of the RD group, which has more than 1,400 stores. Pharmacia Raia was founded on August 3, 1905, in the city of Araraquara, in the interior of São Paulo, from a dream and with the dedication of João Baptista Raia, an Italian who arrived in the country in 1895, graduated in Pharmacy, and decided to open his own business.

Back then, almost all medications were compounded, and meticulous care was required. Their precise and careful service became synonymous with trust and quality, thus guaranteeing customer satisfaction and loyalty.

The second store opened in 1931 in Araçatuba, and in 1937 it expanded throughout the interior of São Paulo state, starting a chain of stores, eventually reaching the capital in 1951. In the following years, Droga Raia increased the number of stores to 18, and by 1990, there were already 34 stores spread throughout the state of São Paulo. By 1992, it was already a prominent pharmacy chain in São Paulo and had approximately 750 employees.

During this same period, to meet the diverse demands of consumers, in addition to selling medications, the Droga Raia chain of pharmacies also sold perfumery products, symbolizing the brand with the concept of "Health and Beauty 24 hours a day," ending the decade with 80 stores and the slogan "Trust and respect since 1905."

The 2000s were marked by development, modernization, and the centenary of Droga Raia. With increased investment in innovation, as well as experience in providing differentiated service to its customers, Droga Raia conquered new markets in other Brazilian states.

That same year, Droga Raia opened its first store outside the state of São Paulo, arriving in Rio de Janeiro. The positive results of the Rio experience boosted growth, and in 2003, it expanded to Minas Gerais and Paraná. In 2004, online sales began. By 2005, it was already serving 70,000 customers a day and selling 6 million products a month, and in 2008, it reached Rio Grande do Sul.

In 2010, Droga Raia went public on the São Paulo Stock Exchange. However, other changes were yet to come. The year 2011 marked a new direction, after the merger with Drogasil, another large company in the sector, giving rise to RD. Together, they became bigger and stronger.

In 2011, it opened stores in Santa Catarina and launched the Muito Mais Raia Loyalty Program, expanding benefits for registered customers. Two years later, it arrived in Goiás, and stores throughout the network received a new visual identity. In 2014, it expanded to Mato Grosso do Sul, and the group reached the milestone of one thousand stores.

The Droga Raia brand continues its history, faithful to the essence of good customer relations and its unique style of service, where care is part of the philosophy: "Pleasure in Caring".

Learn about Bradesco's history | Bradesco Bank

banco.bradesco/html/classic/sobre

Corporate Identity

Values

- Customer as the reason for the Organization's existence.
- Ethics in all activities and relationships.
- Transparency in the information needed by stakeholders.

- Belief in the value and development potential of people.
- Respect for the dignity and diversity of human beings.
- Social and environmental responsibility, with incentives for actions aimed at sustainable development.

Purpose

To create opportunities for personal fulfillment and the sustainable development of businesses and society.

Values

Values are the fundamental beliefs of the Organization, which serve as a guide in fulfilling our purpose:

- Customer as the reason for the Organization's existence.
- Ethics in all activities and relationships.
- Transparency in the information needed by stakeholders.
- Belief in the value and development potential of people.
- Respect for the dignity and diversity of human beings and
- Social and environmental responsibility, with incentives for actions aimed at sustainable development.

Additionally, our values as factors for success in our business are:

- Bradesco's brand strength is backed by a strong tradition in the financial, capital, and insurance markets.
- A strong corporate culture and governance focused on the long-term viability of the business, coupled with our commitment to sustainability.
- One of the best distribution networks in the country, in terms of modernity and reach.
- Extensive portfolio of products, services and solutions for all segments.
- High investments in technology

Vision

To be the customer's preferred choice, both in the physical and digital worlds, differentiating ourselves through efficient performance across all market segments.

Values

- Customer as the reason for the Organization's existence.
- Ethics in all activities and relationships.
- Transparency in the information needed by stakeholders.

- Belief in the value and development potential of people.
- Respect for the dignity and diversity of human beings.
- Social and environmental responsibility, with incentives for actions aimed at sustainable development.

Purpose

To create opportunities for personal fulfillment and the sustainable development of businesses and society.

Values

Values are the fundamental beliefs of the Organization, which serve as a guide in fulfilling our purpose:

- Customer as the reason for the Organization's existence.
- Ethics in all activities and relationships.
- Transparency in the information needed by stakeholders.
- Belief in the value and development potential of people.
- Respect for the dignity and diversity of human beings and

- Social and environmental responsibility, with incentives for actions aimed at sustainable development.

  Additionally, our values as factors for success in our business are:

- Bradesco's brand strength is backed by a strong tradition in the financial, capital, and insurance markets.
- A strong corporate culture and governance focused on the long-term viability of the business, coupled with our commitment to sustainability.
- One of the best distribution networks in the country, in terms of modernity and reach.
- Extensive portfolio of products, services and solutions for all segments.
- High investments in technology

Vision

To be the customer's preferred choice, both in the physical and digital worlds, differentiating ourselves through efficient performance across all market segments.

Values

- Customer as the reason for the Organization's existence.
- Ethics in all activities and relationships.
- Transparency in the information needed by stakeholders.

  - Belief in the value and development potential of people.
  - Respect for the dignity and diversity of human beings.
  - Social and environmental responsibility, with incentives for actions aimed at sustainable development.

OUR HISTORY

1940

An innovative bank is born.

A story guided by the determination to offer banking services and products to all citizens throughout Brazil.

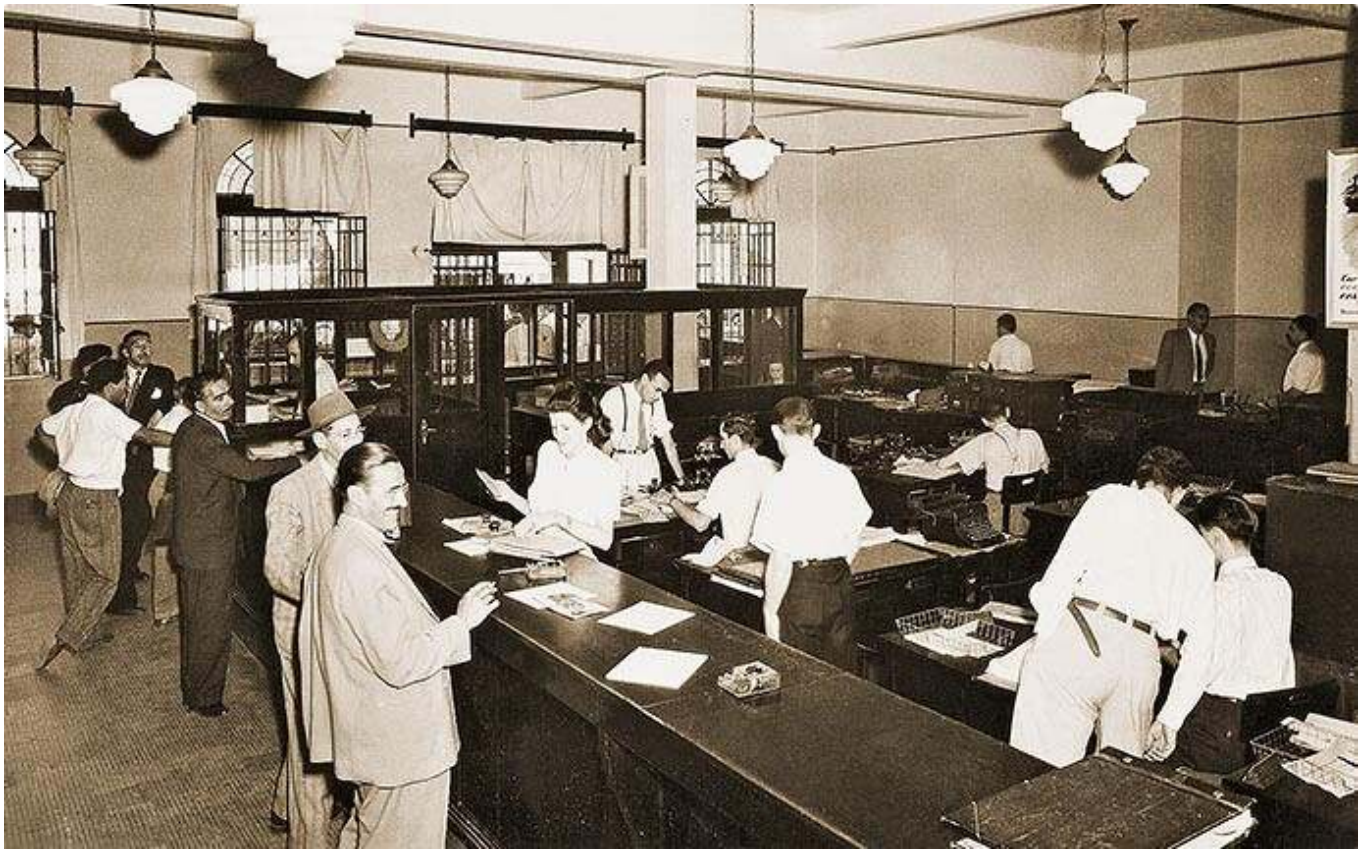
- **Founded in Marília on March 10, 1943**
- **First bank to place its managers in the customer service area.**

- **Launches the first popular and youth-oriented current account.**
- **Begins expansion into southern Brazil with 7 branches in Paraná.**

Bradesco was founded by Amador Aguiar with an innovative vision: to be a democratic bank, present throughout the country, serving its economic and social development. To this end, it served immigrants, farmers, and small business owners, in addition to the traditional banking clientele of entrepreneurs and large landowners. Managers taught clients how to fill out checks, and the bank was the first in the country to accept electricity bill payments from the Light company. With the growth of operations, the headquarters were moved to the center of São Paulo.



Agency in Marília, SP - 1943



Interior of the Marília Agency - 1943



Almeida & Cia. Banking Company, Pompeia, SP, succeeded by Banco Brasileiro de Descontos SA.



First Assembly of Banco Brasileiro de Descontos SA, in Marília - 1944



Brochure from one of Bradesco's advertising campaigns for the Youth Account.





The Bradesco Group

With an efficient operating model focused on priority activities, the Bradesco Group operates in the main areas of the financial sector, with companies that stand out for their performance and results.

Companies that make up the Bradesco Group

- **One of the world's largest banks**
- **Leader in technological innovation**

- **Products tailored to your customers**
- **The most extensive network of agencies and services in the private sector in Brazil.**

Bradesco Bank is one of the largest financial institutions in Brazil, considering total assets, number of branches, and clients. It serves diverse audiences in Brazil and abroad, including individuals, companies of all sizes, and major national and international corporations and institutions. The bank offers services and products that include credit operations and deposit taking, credit card issuance, consortiums, insurance, leasing, collection and payment processing, supplementary pension plans, asset management, and securities brokerage and intermediation services.

Company data

Company Name: Banco Bradesco SA - CNPJ: 60.746.948.0001-12 Address: Cidade de Deus s/nº - Vila Yara - Osasco - SP - CEP: 06029-900

Diverse solutions, high standards, and market leadership.

- 30 years of experience in the market
- Specialized plans for different profiles
- Profitability and growing number of clients.
- Online tool that streamlines the work of the broker.

With a solid and reliable structure, Bradesco Vida e Previdência is a company specializing in life insurance and private pension plans. It is a pioneer in a wide range of products in this segment, focused on protecting the resources of those who plan for the future.

Since 1981, it has developed and managed individual and corporate retirement, pension, and savings plans, as well as life insurance. It offers various options for your financial planning **and the security of your family.**

In the supplementary pension segment, it has nearly 2 million individual participants and approximately 40,000 corporate plans. In the life insurance segment, it has over 10 million insured individuals and nearly 70,000 corporate clients.

Company data

Company Name: BRADESCO VIDA E PREVIDÊNCIA S/A
CNPJ: 051.990.695/0001-37
Address: AV. ALPHAVILLE, 779
NEIGHBORHOOD: EMPRESARIAL 18 DO FORTE – BARUERI - SP
ZIP CODE: 064.72-900

The health of beneficiaries in good company.

- Leader in the group health plan segment.
- It serves the entire national territory.
- Plans tailored to each company's profile.
- A network of recognized professionals and leading centers in all fields of medicine.

Bradesco Saúde is the insurance company that is part of the Bradesco Seguros e Previdência Group, operating exclusively in medical and hospital health insurance.

Synonymous with quality, credibility, solidity, and security, Bradesco Saúde is the first health insurance company in the country to have its quality certified by the Accreditation method, according to ANS standards – and the only one to receive a seal based on international parameters.

The company currently has over 3.7 million beneficiaries, of which approximately 95% are beneficiaries of group plans. The continuous pursuit of excellence in service standards and the services provided is the central objective that has enabled Bradesco Saúde to maintain its market leadership.

Company data

Company Name: Bradesco Saúde SA
CNPJ: 92.693.118/0001-60
Address: Rua Barão de Itapagipe, 225
Rio Comprido - Rio de Janeiro - RJ
CEP: 20261-901

Access Bradesco Saúde

A diverse range of products and solid financial protection for all types of clients.

- Over 3 million active customers in Brazil.
- Leader in the ranking of private companies in the market
- Rating classification brAA- by Standard & Poor's

Bradesco **Capitalização** , a company of the Bradesco Seguros Group, was created in 1984 and has maintained a steady pace of business growth ever since. Its trajectory has earned it a prominent position in the capitalization market, resulting in recognition from over 3 million active clients nationwide for the high level of services provided.

Part of the Bradesco Seguros holding company, the company offers quality service and has a transparent operating policy, in addition to a diverse range of products to meet the needs of all profiles. The available policies vary according to the payment method, the holding period, the frequency of draws, and the value of the prizes.

With various strategies adopted in recent years, the company seeks to grow its business and conquer even more challenges and opportunities, and has established a presence on the internet, in self-service machines, on mobile phones, by telephone, and in branches.

To maintain a high standard of conduct, all employees of this company adhere toSectoral Code of Ethical ConductThis complements the Organization's guidelines, reinforcing the holding company's commitment to maintaining a responsible relationship with its stakeholders.

Company data

Company Name: Bradesco Capitalização SA
CNPJ: 33.010.851/0001-74
Address: Av. Alphaville, 779
Barueri / SP
CEP: 06472-900

Contact Bradesco Seguros' press office.

Solutions and products that are a benchmark in the insurance market.

- Over 1 million vehicles covered.
- Flexibility in purchasing insurance.
- Strong retention capacity in the risks it underwrites.
- Special conditions for different segments and needs.

Created in 2004 to operate in the area of auto insurance and property and casualty insurance, Bradesco Auto/RE is present in 40 of the 100 largest groups in the country as an insurer for their assets.

With a portfolio of over 1.7 million insured vehicles and 1,700 insured residences, the company manages a broad catalog of policies, developed to meet the needs of a wide variety of customer profiles.

Flexible and comprehensive coverage options, quick quotes, raffles, diverse payment methods, and specialized services enhance the list of benefits available to policyholders.

To maintain a high standard of conduct, all employees of this company adhere toSectoral Code of Ethical Conduct, complementing the Organization's guidelines, reinforcing the holding company's commitment to responsible action towards its stakeholders.

Company data

Company Name: Bradesco Auto RE Companhia de Seguros
CNPJ: 92682038/0001-00
Address: Rua Barão de Itapagipe, 225
Rio Comprido - Rio de Janeiro - RJ
CEP: 20261-901

Operations involving vehicles, aircraft, machinery and equipment.

- One of the largest leasing groups in the country.
- Integrated operation with the Bradesco branch network.
- Partnerships with major manufacturers/representatives in the aviation, nautical, automotive, and machinery and equipment sectors.

Bradesco Organization's leasing companies are among the most prominent in the sector. Bradesco Leasing SA, one of the leading companies in the segment, operates in asset acquisition operations, intermediated by Bradesco Leasing SA Arrendamento Mercantil and Banco Bradesco Financiamentos SA.

Company data

Company Name: Bradesco Leasing SA - Leasing Company
CNPJ: 047.509.120/0001-82
Address: Cidade de Deus, s/n.º, 2nd Floor - Prata Building, Vila Yara
Osasco – São Paulo
Postal Code: 06029-900

Consortium plans for real estate, automobiles, trucks, tractors, agricultural implements, and buses.

- Market leader in the segments in which it operates – real estate, automobiles and trucks.
- Extensive customer service network, with over 4,600 locations nationwide.
- Bradesco Consortium is the planned, economical and secure way to bring your projects to life.

Bradesco Consórcios entered the market in January 2003 to offer consortium shares accessible to all social classes. The plans allow the acquisition of real estate, automobiles, trucks, tractors, agricultural implements, and buses, with the security and peace of mind that the Bradesco brand provides.

The company offers 24-hour customer service on its website or through the **Consortium Member Channel** , which provides services such as statements, online bidding, and assembly results inquiries, among others. Consortium members also have access to an **exclusive Bradesco Consórcios Customer Service Center** , offering practicality and convenience.

The capital management of the shares is handled by BRAM (Bradesco Asset Management), a third-party asset management company that is also part of the Bradesco Group, which lends even more credibility and confidence to the product.

Company data

Company Name: Bradesco Administradora de Consórcios Ltda.
CNPJ: 52.568.821/0001-22
Address: Cidade de Deus, s/nº - Prédio Marrom, Vila Yara
Osasco - São Paulo
CEP: 06029-900

Access Bradesco Consórcios

We offer specialized solutions for vehicle financing and sales.

- Tailor-made solutions for cars, motorcycles, trucks and more.
- Various partners throughout Brazil

Through a wide network of partners - made up of more than 10,000 dealerships and resellers distributed throughout the country - we offer the best financing options for cars, motorcycles, trucks, buses, machinery and implements.

Company data

Company name: Banco Bradesco Financiamentos SA
CNPJ: 07.207.996/0001-50
Address: Cidade de Deus, s/n°, Prédio Cinza, 1° andar, Vila Yara
Osasco – SP
CEP: 06029-900

Access Bradesco Financing - Vehicles

The ideal partner for strategic decision-making and complex solutions.

- A highly qualified team, ready to present you with the best alternatives.
- Specialized knowledge of national and international markets.
- Innovation and long-term commitment to clients.

Bradesco BBI is responsible for the origination, structuring, execution, and distribution of transactions in the equity, fixed income, structured operations, mergers, acquisitions, and project finance segments. To achieve this, it relies on a highly qualified and experienced team, with complete synergy with the other business units of the Bradesco Group.

Bradesco BBI constantly seeks innovation in its products and services in order to offer its clients the best alternatives for the development of their businesses.

Company data

Company Name: Banco Bradesco BBI SA
CNPJ: 06.271.464.0073-93
Address: Av. Paulista, 1450, 8th floor
São Paulo - SP
CEP: 01310-917
Tel.: (11) 2178-4800
E-mail:bbi@bradescobbi.com.br

Access Bradesco BBI

Your new Investment Home

- Variety of fixed income products. Options for all types of traders: Stock Lending, Forward Contracts, Options, Futures Market, Margin Accounts, ETFs, among others. Exclusive products such as COE (Certificate of Deposit) and customized Recommended Portfolios. Selection of the best products on the market, regardless of the issuer.
- Certified advisors, Personalized recommendations, Trading specialists, Independent agents, Focus on relationships;
- Customized website for each client. Investment simulator. 100% digital registration, modern and agile Home Broker. New app with easy and digital recognition.
- Agora Insights, Daily Live Streams, Agora TV, Podcast, Technical and Fundamental Analysis Reports, Dedicated Research Team.

We are an investment firm. A place where you can count on differentiated investment advice and find experience, selected products, and unique content to achieve your goals.
Since 1993, Ágora Investimentos has been a benchmark for innovation in the financial market. We were the first to launch the Home Broker tool in Brazil and continue to invest in technologies that make your life easier.
Here we also bring together some of the market's leading professionals. These are experienced individuals with an exclusive interest in helping our investor clients, whether by understanding their objectives, preparing strategies, sharing market insights, or creating daily content about opportunities.

Company data

Company Name: Ágora Corretora de Títulos e Valores Mobiliários SA
CNPJ: 74.014.747/0001-35
Address: Avenida Paulista, 1450, 3rd floor
São Paulo - SP
CEP: 01310-917
Access Agora Investimentos:

Specialized management for all customer and market segments.

- One of the largest third-party asset managers in Brazil.
- Highly specialized team of professionals
- Creating products that follow market trends and opportunities.
- Consistent decisions made based on our own research and analysis.

Bradesco Bank has over 40 years of experience in managing third-party assets, always maintaining its leadership in the industry. Bradesco Asset is a department that brings together not only the Bradesco name, but also knowledge and presence in the Brazilian capital market.

It offers a wide range of products. In addition to Fixed Income and Equity Investment Funds, it manages differentiated funds such as Long & Short, Small Caps, Private Credit, Structured Funds (REITs, FIDC and FIP), among others. These diversified products aim to respond to new opportunities in the Brazilian capital market.

Specialized professionals cater to the specific needs of each investor profile, based on independent research and monitoring of the economic landscape. Furthermore, Bradesco Asset develops products for corporate cash management, partners with companies to distribute the funds it manages, and offers support to Banco Bradesco's segments, providing comprehensive information on investment funds for individuals and businesses.

Bradesco Asset Management: a recognized presence in asset management.

> In 2012, BRAM (Bradesco Asset Management) received a reclassification to MQ1 Rating, the highest rating in management quality according to rigorous evaluation criteria from Moody's. It was a pioneer in the segment by obtaining the ISO 9001 quality system certificate from the Vanzolini Foundation, which it has maintained ever since with annual evaluations.

Sustainability in the investment process

Committed to socio-environmental principles, BRAM has adhered to the PRI — Principles for Sustainable Investment — incorporating environmental, social, and governance criteria into its decision-making process.

Furthermore, it is responsible for managing the resources of the fund created by Bradesco for the Amazonas Sustainable Foundation (FAS), for programs aimed at preserving the Amazon Rainforest and improving the quality of life of riverside communities. It is also the manager responsible for the ISE Funds (Corporate Sustainability Index), distributed by Bradesco branches, the Corporate Governance Funds, and the HiperFundo, which distributes sustainable awards, adhering to the principles of responsible investment.

If you are looking for experience, dedicated service and management, as well as excellent results, contact BRAM.

Data from Bradesco Asset

Bradesco Bank SA | CNPJ:
60.746.948.0001-12
City of God, s/nº Vila Yara |
Osasco | SP | CEP: 06029-900
Management Activity: Avenida Brigadeiro

Faria Lima, 3.950 – 3rd floor São Paulo,
SP | CEP: 04538-132
E-mail:bram@bram.bradesco.com.br

Access BRAM - Bradesco Asset Management

- Next is a 100% digital bank that offers checking accounts, credit and debit cards, investment options, perks, digital wallets, and much more – such as transfers, withdrawals at over 45,000 ATM locations and the Banco 24Horas network, for example.
  Company Data : Company Name - Next Tecnologia e Serviços Digitais SA
  CNPJ - 15.011.336/0001-27
  Address - Rua Domingos dos Anjos, nº 277, 3º andar, Jardim Santo Elias, CEP 05136-170, São Paulo/SP
  Website for redirection -https://next.me/

Responsible Performance



Bradesco Sustainability



[Bradesco Foundation]



[Sports and Education]



Online Courses

Code of Ethical Conduct

Visit the Code of Conduct page to find information about results and conference calls.

Learn more

Quality policy

Download our quality policy and learn about our guidelines.

Learn more

Suppliers

Quick and transparent information for those who are or want to be our business partners.

Learn more

Work with us

We are the best place to build your successful career.

Investor relations

The Investor Relations (IR) area is a direct channel between Bradesco and its shareholders, investors, analysts, and the entire financial community.

Bradesco press release

Stay up-to-date with the bank's news and releases, and contact our press office.

Quem Somos | Sobre Nós

equifax.com.br/sobre-a-equifax/quem-somos

Who we are

We are helping people live their best financial life.

As a trusted global leader in data, analytics, and technology, we provide insights that drive decisions to move people forward.





Positive economic change begins with a single opportunity.

See how Equifax information empowers and provides support during life's crucial moments.

Our commitments reflect our values.

We are nearly 15,000 brilliant minds determined to do the right thing and put people first, while striving to develop employees and communities.



25.5M Database with verifications done for people seeking government assistance in the USA.



43.8 million is the number of Latin American consumers that Equifax has helped gain access to credit.



29 million consumers in the United States who obtained a loan to buy a car.



Over 638,000 families in Australia have bought their first home with the support of Equifax.

See our commitments.

We help companies make smarter decisions, faster.

A culture of innovation

We are constantly driving technological change to meet the evolving needs of our customers and consumers worldwide.

Actionable information

Our unique combination of nuanced data and advanced analytics allows us to deliver insights that drive smart decisions and create opportunities.

See how we do it.

Based on actual and estimated results from January to December 2024.
Sources: Data and analysis captured by Equifax business units (US Information Solutions, Workforce Solutions, and International).

About us: Get to know ClearSale

br.clear.sale/sobrenos



One step ahead in innovation

Our purpose is to make digital life simpler, safer, and fairer.



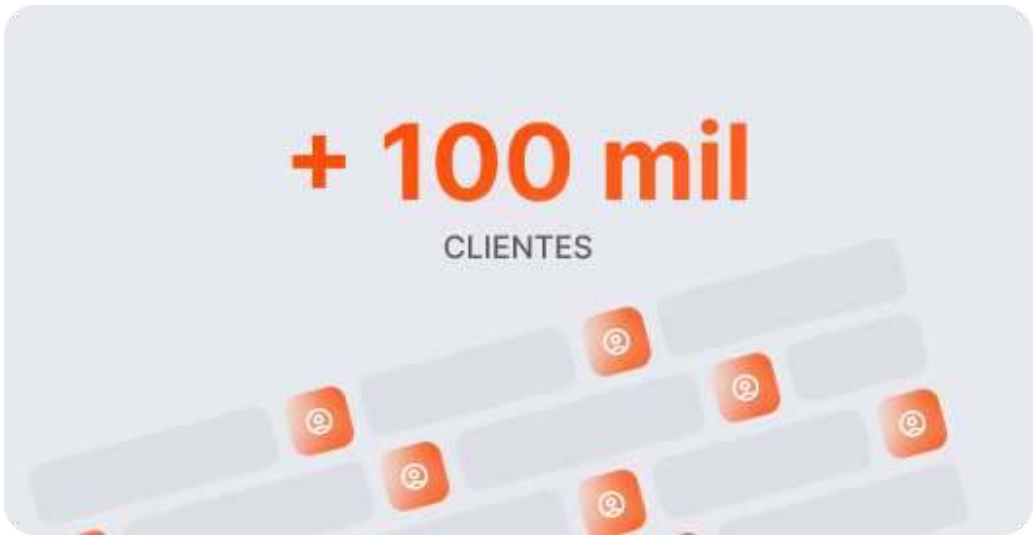

+ 22 anos
DE MERCADO
SEG
TER
QUA
QUI
SEX
SÁB
DOM


SEDES EM
3 Países
BRASIL, MÉXICO E EUA


SEDES EM
3 Países
BRASIL, MÉXICO E EUA


VALIDAMOS TRANSAÇÕES EM MAIS
150 Países


VALIDAMOS TRANSAÇÕES EM MAIS
150 Países


+ 100 mil
CLIENTES



Our story

2000 2004 2008 2013 2015 2019 2020 2021 2022 2023 2024 2025

Pedro Chiamulera, former Olympic athlete and founder of ClearSale, sells the first anti-fraud software in Brazil, still under the name Antifraude.net, to B2W Companhia Global de Varejo, under its Submarino brand.

We are One Step Ahead!

One step ahead of fraud, credit risks, and innovation.

LEARN MORE ABOUT OUR BRAND

Our awards and recognitions

The recognition we receive in various areas confirms the difference we make in each of their journeys.

- 

- exame. M20 M24
- PRÊMIO CONAREC
- SOMOS BEST WORKPLACES Infojobs
- 20° PRÊMIO BANKING TRANSFORMATION

ClearSale highlights in the press.



Meeting raises awareness about Black Friday scams.

View Report



Brazil has more than 156,000 attempted fraud cases.

View Report



ClearSale: Innovation and collaboration in the fight against fraud.

View Report



Fraud attempts already total R$ 1.2 billion in 2024.

View Report

Stay one step ahead with ClearSale!

Follow our blog and discover the latest news on fraud, credit risks, security and innovation.

Press Contact

Máquina Assessoria:
clearsale@maquinacohnwolfe.com
(11) 3147-7925 — (11) 95943-5975

Our speakers

Brandbook

Check out the brand guide to help with creations and promotions.

Download here!

Sustainability

Access our sustainability report and learn about all our actions.

Access it now!

HSBC Business - Your partner for growth

business.hsbc.com.br/en-gb/why-hsbc

HSBC Commercial Banking and HSBC Global Banking operate in over 50 countries and territories, covering the developed and developing markets that matter most to our customers. Through our teams of Relationship Managers we connect businesses to opportunities, helping them to thrive and grow.

We can connect you to opportunities

We work with a wide range of customers providing them with the tools they need to function efficiently. As a member of the **HSBC Group**, we have the financial strength to support our customers with working capital, term loans and acquisition or project finance, access to cash, trade and FX specialists to deliver Integrated solutions that can help you unlock greater business opportunities.

Your business can leverage from HSBC's international network to provide you with the connections and expertise you need to take your business further.

Our Network covers 90% of global trade and capital flows. We do business with over 38,000 customers worldwide.

Download our International Business Guide and discover how to expand your business. (PDF, 5.1MB)

Our people and products

Our capacity extends beyond product breadth to knowledgeable people in your domestic and target export markets. We grow our business in line with customers' needs across products, geographies and supply chains.

Our relationship managers draw on our deep expertise in commercial finance, such as:

- Global Trade Solutions
- Global Payments Solutions
- Treasury and Risk Management
- Capital Financing
- Advisory Services

Get to know our Group

grupoboticario.com.br/sobre-o-grupo-boticario



We are Grupo Boticário, and our purpose is to create opportunities for beauty to transform people's lives and thus transform the world around us.

This purpose is what connects us with our greatest treasure – our customer – and it is also the foundation that supports our main achievements: today we are one of the largest business groups in Brazil, the largest beauty franchise in the world, and we have the most beloved cosmetics brand in the country.

By people and for people

We were born in 1977 as a small compounding pharmacy driven by the alchemy of cosmetics and human relationships. Our founder, Miguel Krigsner, dreamed of building a 100% Brazilian beauty brand, with high-quality products inspired by love and care for people. With this restless, attentive, and gentle vision, he transformed his small business on Rua Saldanha Marinho into an O Boticário store, today the most beloved beauty brand among Brazilian consumers.

Licensed brand

Licensed brand

Licensed brand

We are building the present and the future of the best and largest beauty ecosystem in the world.

We are a group comprised of different businesses that work in synergy to create products, services, and solutions that enable the best customer experience.

Industry

From research and development to patenting and manufacturing of beauty products.

Omnichannel retail

Franchises, e-commerce, marketplaces, distribution and logistics of private label and licensed brands.

Operations management

Digital and financial solutions for POS management, customer relationship management, and financial control.

Society and planet

social institute and nature conservation foundation

Grupo Boticário today

Over 4,000 physical stores

Presence in over 40 countries

Two of the largest beauty e-commerce companies in Brazil.

More than 18,000 direct employees

Discover our brands

Learn about our journey.

1977

The Apothecary

The origin of everything. **Miguel Krigsner** opens a small compounding pharmacy in Curitiba.

1986

The Apothecary

Internationalization of the business: **first store in Portugal**

1990

Boticário Group Foundation

Nature conservation and support for scientific research.

2004

Boticário Group Institute

Social development through culture, sports, social entrepreneurship, and volunteering.

2011

Eudora

Only those who make their lives happen are truly alive, and beauty propels this journey!

2011

Mooz

Fintech company that offers digital products and services for resellers, franchisees, and suppliers.

2012

Who said that, Berenice?

Freedom to create the beauty you want.

2018

Vult

Affordable technology for your beauty.

2019

Beauty on the Web

The largest digital beauty platform in Latin America.

2019

I'm here.

Official multi-brand store of the Boticário Group, with a huge variety of everyday products and a diverse offering for hair, skincare, makeup, perfumes and much more.

2020

GAVB

A company focused on digital solutions joins the Boticário Group's portfolio of brands.

2020

Magalhães House

Modernizing and helping to solve retail issues through technology is the focus of Casa Magalhães, which becomes part of the Boticário Group this year.

2022

Dr. Jones

High-performance solutions for all men.

2023

Truss Professional

Present in beauty salons in Brazil and worldwide. One of the leaders in the hair product segment.

2024

Au.Migos

The first line of pet products from the Boticário Group!

Our leaders

Miguel Krigsner

From a small compounding pharmacy in Curitiba in 1977 to a Group present in more than 40 countries, our founder continues to lead, dream, and closely follow every step of the Boticário Group's journey.

From Brazil to the world

Grupo Boticário is one of the countless beauties that Brazil transmits to Brazilians and to the entire planet as well. See when, where, and how we share the best of the national essence around the world.

Brazil

Albania

Angola

Argentina

Bolivia

Chile

Colombia

Costa
Rica

United Arab Emirates

El Salvador

Spain

United States

Ecuador

France

Guatemala

Guiana

Netherlands

Honduras

Italy

Japan

Kosovo

Mexico

Mozambique

Nicaragua

Panama

Peru

Poland

Puerto Rico

Portugal

Dominican Republic

Czech Republic

Romania

Suriname

Ukraine

Uruguay

Venezuela

Exhibit D - Personal Documents

José Evandeilton Lopes

Assinatura do titular / Signature du titulaire
Bearer's signature / Firma del titular

FO197840

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.

REPÚBLICA FEDERATIVA DO BRASIL

PASSAPORTE
PASSPORT

TIPO / TYPE
P

SOBRENOME / SURNAME
LOPES

NOME / GIVEN NAMES
JOSE EVANDEILTON

NACIONALIDADE / NATIONALITY
BRASILEIRO(A)

DATA DO NASCIMENTO / DATE OF BIRTH
22 MAR/MAR 1983

SEXO / SEX
M

NATURALIDADE / PLACE OF BIRTH
BUÍQUE/PE

FILIAÇÃO / FILIATION
LUIZ LOPES DA SILVA

MARIA DAS DORES DA CONCEIÇÃO

DATA DE EXPEDIÇÃO / DATE OF ISSUE
31 JUL/JUL 2015

VÁLIDO ATÉ / DATE OF EXPIRY
30 JUL/JUL 2025

AUTORIDADE / AUTHORITY
SR/DPF/PR

P<BRALOPES<<JOSE<EVANDEILTON<<<<<<<<<<<<<<<<<<<
F0197840<8BRA8303224M2507307<<<<<<<<<<<<<<<00



Assinatura do titular / *Signature du titulaire* / *Bearer's signature* / *Firma del titular*

REPÚBLICA FEDERATIVA DO BRASIL

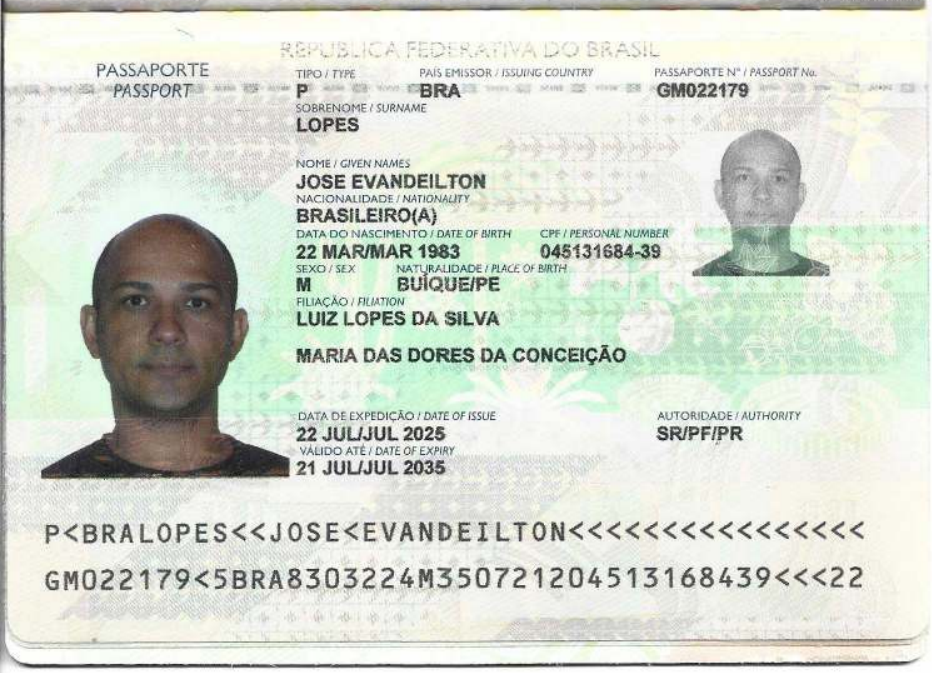
GM022179

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.



PASSAPORTE
PASSPORT

REPÚBLICA FEDERATIVA DO BRASIL

TIPO / *TYPE*: P
PAÍS EMISSOR / *ISSUING COUNTRY*: BRA
PASSAPORTE Nº / *PASSPORT No.*: GM022179

SOBRENOME / *SURNAME*
LOPES

NOME / *GIVEN NAMES*
JOSE EVANDEILTON

NACIONALIDADE / *NATIONALITY*
BRASILEIRO(A)

DATA DO NASCIMENTO / *DATE OF BIRTH*: 22 MAR/MAR 1983
CPF / *PERSONAL NUMBER*: 045131684-39

SEXO / *SEX*: M
NATURALIDADE / *PLACE OF BIRTH*: BUÍQUE/PE

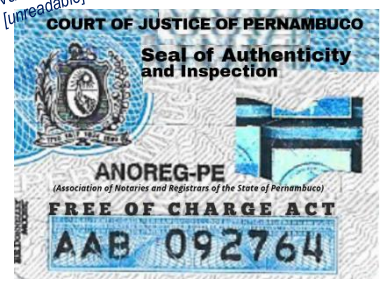
FILIAÇÃO / *FILIATION*
LUIZ LOPES DA SILVA

MARIA DAS DORES DA CONCEIÇÃO

DATA DE EXPEDIÇÃO / *DATE OF ISSUE*: 22 JUL/JUL 2025
AUTORIDADE / *AUTHORITY*: SR/PF/PR
VÁLIDO ATÉ / *DATE OF EXPIRY*: 21 JUL/JUL 2035

P<BRALOPES<<JOSE<EVANDEILTON<<<<<<<<<<<<<<<<
GM022179<5BRA8303224M3507212045131684 39<<<22

Valid only with the seal of authenticity
Resolution [unreadable] 99 / Court of Justice of Pernambuco



CIVIL REGISTRY
JUDICIAL DISTRICT OF ARARIPINA
CITY OF ARARIPINA
DISTRICT OF MORAIS

MARIA EDLENE GOMES PEREIRA
Civil Registry Registrar

Maria Edlene Gomes Pereira
CIVIL REGISTRY REGISTRAR OF MORAIS
Araripina - Pernambuco

Birth Certificate

I certify that, on page 52 verso of book A-11, under entry number 10,364, it was registered the birth record of **JOSÉ EVANDEILTON LOPES**, male, born on the **twenty-second of March, nineteen eighty-three (03/22/1983),** at 3:00 AM, in Sítio Barra Velha, city of Buíque/Pernambuco.

Son of ---------- **LUIZ LOPES DA SILVA**
And ---------- **MARIA DAS DORES DA CONCEIÇÃO**

Paternal Grandparents ------ Antonia Maria da Conceição

Maternal Grandparents ------ Júlia Maria da Conceição

The record was registered on July 16, 1994, with the father as the informant. The witnesses are those listed in the record.

Notes: None

The above is true, I certify.

Morais - Araripina/Pernambuco, March 10, 2009.

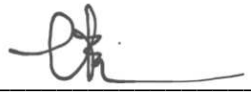
-----//Signature//----

Maria Edlene Gomes Pereira
- Registrar -

Maria Edlene Gomes Pereira
Registrar

Rua Vereador José Alcebíades, no number (Morais), Araripina/Pernambuco

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: August 1, 2025.

REGISTRO CIVIL
COMARCA DE ARARIPINA
MUNICIPIO DE ARARIPINA
DISTRITO DE MORAIS

Maria Edlene Gomes Pereira
OFICIALA DO REGISTRO CIVIL MORAIS
Araripina - PE

MARIA EDLENE GOMES PEREIRA
Oficiala do Registro Civil

Valido somente o selo de autenticidade
Resolução 199 Tribunal de Justiça
de Pernambuco

TRIBUNAL DE JUSTIÇA DE PERNAMBUCO
Selo de Autenticidade e Fiscalização
ANOREG-PE
ATO GRATUITO
AAB 092764

Certidão de Nascimento

Certifico que, às fls. 52vr, do livro A-11, sob o n° de ordem 10.364, foi lavrado o assento do nascimento de **JOSÉ EVANDEILTON LOPES,** do sexo masculino, nascido(a) no dia **vinte e dois de março de mil novecentos e oitenta e três (22.03.1983),** às 03:00 horas, em Sítio Barra Velha, município de Buíque/PE.

Filho(a) de----------**LUIZ LOPES DA SILVA**
E de----------**MARIA DAS DORES DA CONCEIÇÃO**

Avós Paternos------Antonia Maria da Conceição

Avós Maternos------Júlia Maria da Conceição

O assento foi lavrado em 16 de julho de 1994, tendo sido declarante o genitor. Serviram de testemunhas as constantes do termo.

Observações: Nenhuma

O referido é verdade, dou fé.

Morais - Araipina/PE, 10 de março de 2009.

Maria Edlene Gomes Pereira
-Oficiala-

VÁLIDO EM TODO TERRITÓRIO NACIONAL, QUALQUER ADULTERAÇÃO OU EMENDA INVALIDA ESTE DOCUMENTO.

FUNARPEN

INSPECTION SEAL
SFRC2.dcaL8.mQzwf
RK7aF.F965q
http://selo.funarpen.com.br

FEDERATIVE REPUBLIC OF BRAZIL
CIVIL REGISTRY OF NATURAL PERSONS

MARRIAGE CERTIFICATE

CIVIL REGISTRY OF NATURAL PERSONS
Terezinha de Jesus Dangui Matté
Delegated Registrar
PIRAQUARA – PARANÁ

Current names of the spouses:	CPF:
JOSÉ EVANDEILTON LOPES **	**045.131.684-39 ****
MARIA DAS DÔRES PROCOPIO DA SILVA LOPES **	**046.934.064-90 ****

Registration
144691 01 55 2022 2 00056 103 0014277 62

1st Spouse:

Name	Day	Month	Year
JOSÉ EVANDEILTON LOPES **	22	03	1983

Nationality	Marital status	City of birth	State
Brazilian **	Single **	Buique **	Pernambuco

Parent(s)
LUIZ LOPES DA SILVA; MARIA DAS DORES DA CONCEIÇÃO **

Name adopted
JOSÉ EVANDEILTON LOPES **

2nd Spouse:

Name	Day	Month	Year
MARIA DAS DÔRES PROCOPIO DA SILVA **	07	06	1980

Nationality	Marital status	City of birth	State
Brazilian **	Single **	Coruripe**	Alagoas

Parent(s)
JOSÉ ANTONIO DA SILVA; ANTONIA PROCOPIO **

Name adopted
MARIA DAS DÔRES PROCOPIO DA SILVA LOPES **

Date of the marriage ceremony or, in the case of conversion of a stable union, date of registration	Day	Month	Year
December third, two thousand seven **	03	12	2007

Property regime
Partial Community of Property **

Date of marriage registration	Day	Month	Year
February twelfth, two thousand twenty-two **	12	02	2022

Notes/Marginal Notes
Fees: R$48.47 (VRC 175.00) Seal: R$8.00, FUNDEP: R$2.42, ISSQN: R$2.42. Total: R$61.31

Voluntary registration notes

1st Spouse:

Document type	Number	Date of issue	Issuing authority	Expiration date
RG ID	7.745.220-0	---------	SSP/PE	---------

2nd Spouse:

Document type	Number	Date of issue	Issuing authority	Expiration date
RG ID	2.057.755	---------	SSP/PR	---------

*The registration notes above do not exempt the interested party from presenting the original document when required by the requesting agency or when necessary for the identification of the holder.

CNS No. 144691
Name of Office CIVIL REGISTRY AND TITLES AND DOCUMENTS
Registrar Terezinha de Jesus Dangui Matté
City and Judicial Jurisdiction / State Piraquara - State of Paraná
Address Rua Barão do Cerro Azul, No. 1,120 ZIP Code: 83,301-000 - Phone: (41) 3673-1273

The content of this certificate is true. I certify.

Piraquara - Paraná, June 12, 2025.

----//signature//----
Aline Matté Grando
Sworn Clerk

IA00584552

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: July 31, 2025.

FUNARPEN

SELO DE FISCALIZAÇÃO
SFRC2.dcaL8.mQzwf
RK7aF.F965q
https://selo.funarpen.com.br

REGISTRO CIVIL DAS PESSOAS NATURAIS
Terezinha de Jesus Dangui Matté
Agente Delegada
PIRAQUARA - PR

REPÚBLICA FEDERATIVA DO BRASIL
REGISTRO CIVIL DAS PESSOAS NATURAIS

CERTIDÃO DE CASAMENTO

Nome atual dos cônjuges:	Número do CPF
JOSÉ EVANDEILTON LOPES ••	045.131.684-39 ••
MARIA DAS DÔRES PROCOPIO DA SILVA LOPES ••	046.934.064-90 ••

Matrícula
144691 01 55 2022 2 00056 103 0014277 62

1º Cônjuge

Nome	Data de nascimento: Dia	Mês	Ano
JOSÉ EVANDEILTON LOPES ••	22	03	1983

Nacionalidade	Estado civil	Município da naturalidade	UF
brasileiro••	solteiro••	Buique••	PE

Genitor(es)
LUIZ LOPES DA SILVA; MARIA DAS DORES DA CONCEIÇÃO••

Nome que passou a utilizar
JOSÉ EVANDEILTON LOPES••

2º Cônjuge

Nome	Data de nascimento: Dia	Mês	Ano
MARIA DAS DÔRES PROCOPIO DA SILVA ••	07	06	1980

Nacionalidade	Estado civil	Município da naturalidade	UF
brasileira••	solteira••	Coruripe••	AL

Genitor(es)
JOSÉ ANTONIO DA SILVA; ANTONIA PROCOPIO••

Nome que passou a utilizar
MARIA DAS DÔRES PROCOPIO DA SILVA LOPES••

Data da celebração do casamento ou, se for o caso de conversão da união estável, data do registro	Dia	Mês	Ano
Três de dezembro de dois mil e sete••	03	12	2007

Regime de bens
Comunhão Parcial de Bens••

Data de registro do casamento	Dia	Mês	Ano
Doze de fevereiro de dois mil e vinte e dois ••	12	02	2022

Anotações/Averbações
Emolumentos: R$48,47(VRC 175,00) Selo: R$8,00, FUNDEP: R$2,42, ISSQN: R$2,42. Total: R$61,31. ••

Anotações voluntárias de cadastro

1º Cônjuge

Tipo documento	Número	Data expedição	Orgão expedidor	Data de validade
RG/CIN	7.745.220-0	----------	SSP/PE	----------

2º Cônjuge

Tipo documento	Número	Data expedição	Orgão expedidor	Data de validade
RG/CIN	2.057.755	----------	SSP/PR	----------

* As anotações de cadastro acima não dispensam a parte interessada da apresentação do documento original, quando exigido pelo órgão solicitante ou quando necessário para identificação de seu portador.

CNS nº 144691

Nome do Ofício
REGISTRO CIVIL E TÍTULOS E DOCUMENTOS

Oficial Registrador
Terezinha de Jesus Dangui Matté

Município e Comarca / UF
Piraquara - Estado do Paraná

Endereço
Rua Barão do Cerro Azul, nº 1.120
CEP: 83.301-000 - Fone: (41)3673-1273

O conteúdo da certidão é verdadeiro. Dou fé.

Piraquara -PR, 12 de junho de 2025 .

Aline Matté Grando
Escrevente Juramentada

Indústria Gráfica Brasileira Ltda

IA 005844552



Maria das DOres Procopio S. Lopes

Assinatura do titular / *Signature du titulaire* /
Bearer's signature / *Firma del titular*

REPÚBLICA FEDERATIVA DO BRASIL

GL798520

Este passaporte deve ser assinado
pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé
par le titulaire, sauf en cas d'incapacité.

This passport must be signed,
except where the bearer is unable to do so.

Este pasaporte debe ser firmado
por el titular, salvo en caso de incapacidad.



PASSAPORTE
PASSPORT

TIPO / TYPE: P
PAÍS EMISSOR / ISSUING COUNTRY: BRA
PASSAPORTE Nº / PASSPORT No.: GL798520

SOBRENOME / SURNAME
PROCOPIO DA SILVA LOPES

NOME / GIVEN NAMES
MARIA DAS DÔRES

NACIONALIDADE / NATIONALITY
BRASILEIRO(A)

DATA DO NASCIMENTO / DATE OF BIRTH: 07 JUN/JUN 1980
CPF / PERSONAL NUMBER: 046934064-90

SEXO / SEX: F
NATURALIDADE / PLACE OF BIRTH: CORURIPE/AL

FILIAÇÃO / FILIATION
JOSÉ ANTONIO DA SILVA

ANTONIA PROCOPIO

DATA DE EXPEDIÇÃO / DATE OF ISSUE: 26 JUN/JUN 2025
AUTORIDADE / AUTHORITY: SR/PF/PR
VÁLIDO ATÉ / DATE OF EXPIRY: 25 JUN/JUN 2035

P<BRAPROCOPIO<DA<SILVA<LOPES<<MARIA<DAS<DORE
GL798520<8BRA8006075F3506259046934064906490<<<90

Davi Procopio Lopes

Assinatura do titular / *Signature du titulaire / Bearer's signature / Firma del titular*

REPÚBLICA FEDERATIVA DO BRASIL

GL799384

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.



PASSAPORTE
PASSPORT

TIPO / *TYPE* **P**

PAÍS EMISSOR / *ISSUING COUNTRY* **BRA**

PASSAPORTE Nº / *PASSPORT No.* **GL799384**

SOBRENOME / *SURNAME*
PROCOPIO LOPES



NOME / *GIVEN NAMES*
DAVI

NACIONALIDADE / *NATIONALITY*
BRASILEIRO(A)

DATA DO NASCIMENTO / *DATE OF BIRTH* **06 AGO/AUG 2013**

CPF / *PERSONAL NUMBER* **564528318-01**

SEXO / *SEX* **M**

NATURALIDADE / *PLACE OF BIRTH* **CURITIBA/PR**

FILIAÇÃO / *FILIATION*
JOSÉ EVANDEILTON LOPES

MARIA DAS DÔRES PROCOPIO DA SILVA LOPES

O titular, enquanto menor, está autorizado pelos genitores, pelo prazo deste documento, a viajar apenas com um dos pais, indistintamente. Res. CNJ 131/11, Art. 13.



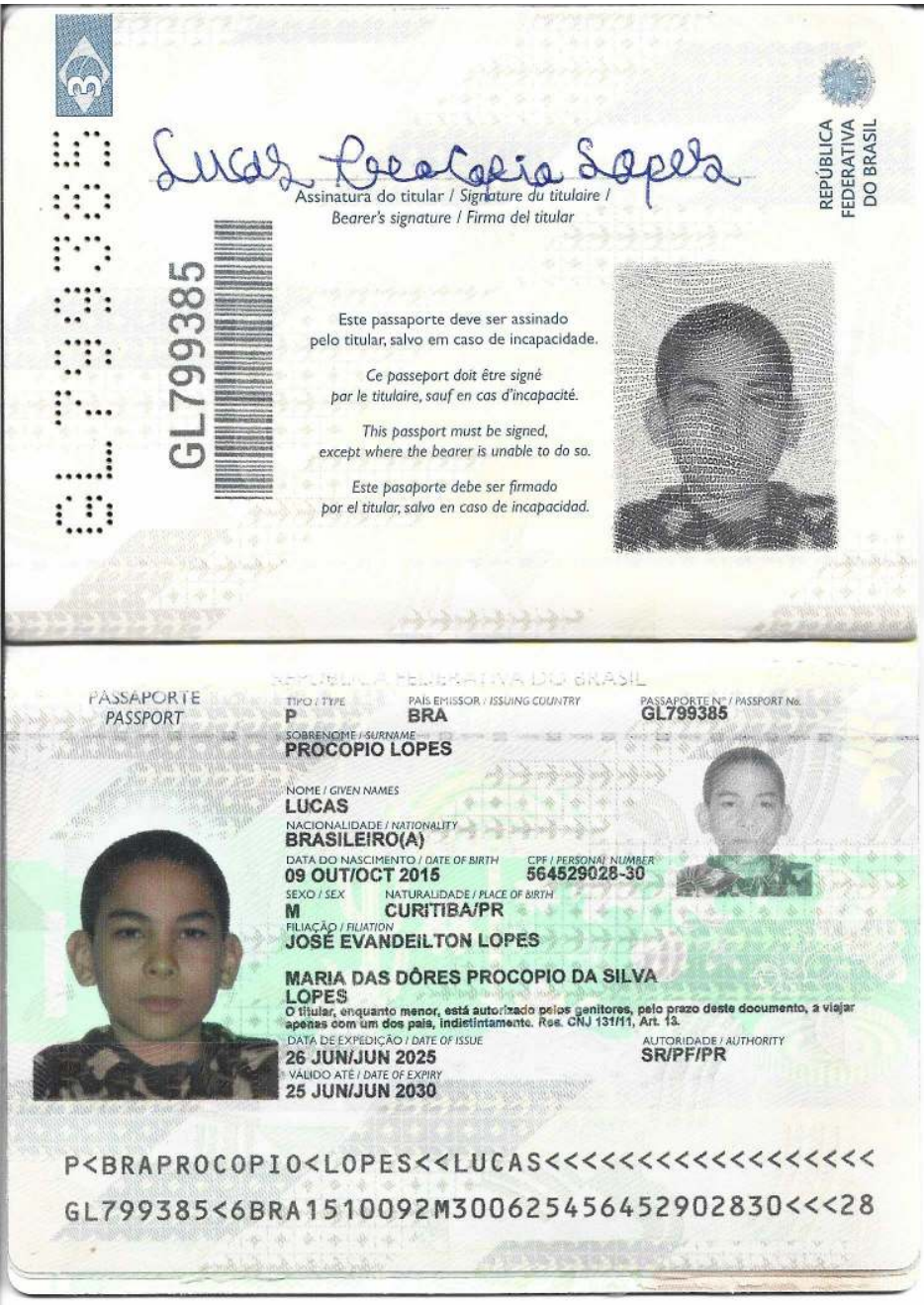
DATA DE EXPEDIÇÃO / *DATE OF ISSUE* **26 JUN/JUN 2025**

AUTORIDADE / *AUTHORITY* **SR/PF/PR**

VÁLIDO ATÉ / *DATE OF EXPIRY* **25 JUN/JUN 2030**

P<BRAPROCOPIO<LOPES<<DAVI<<<<<<<<<<<<<<<<<<<<

GL799384<3BRA1308068M3006254564528318O1<<<14



Assinatura do titular / *Signature du titulaire /*
Bearer's signature / Firma del titular

REPÚBLICA FEDERATIVA DO BRASIL

GL799385

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.

PASSAPORTE
PASSPORT

REPÚBLICA FEDERATIVA DO BRASIL

TIPO / *TYPE* P

PAÍS EMISSOR / *ISSUING COUNTRY* BRA

PASSAPORTE Nº / *PASSPORT No.* GL799385

SOBRENOME / *SURNAME*
PROCOPIO LOPES

NOME / *GIVEN NAMES*
LUCAS

NACIONALIDADE / *NATIONALITY*
BRASILEIRO(A)

DATA DO NASCIMENTO / *DATE OF BIRTH* 09 OUT/OCT 2015

CPF / *PERSONAL NUMBER* 564529028-30

SEXO / *SEX* M

NATURALIDADE / *PLACE OF BIRTH* CURITIBA/PR

FILIAÇÃO / *FILIATION*
JOSÉ EVANDEILTON LOPES

MARIA DAS DÔRES PROCOPIO DA SILVA LOPES

O titular, enquanto menor, está autorizado pelos genitores, pelo prazo deste documento, a viajar apenas com um dos pais, indistintamente. Res. CNJ 131/11, Art. 13.

DATA DE EXPEDIÇÃO / *DATE OF ISSUE* 26 JUN/JUN 2025

AUTORIDADE / *AUTHORITY* SR/PF/PR

VÁLIDO ATÉ / *DATE OF EXPIRY* 25 JUN/JUN 2030

P<BRAPROCOPIO<LOPES<<LUCAS<<<<<<<<<<<<<<<<<<<<

GL799385<6BRA1510092M3006254564529028 30<<<28

FEDERATIVE REPUBLIC OF BRAZIL

CIVIL REGISTRY

STATE OF Alagoas

JUDICIAL DISTRICT OF Coruripe

CITY OF Coruripe

1st DISTRICT OF Coruripe

Terezinha de Lima Almeida
CIVIL REGISTRY REGISTRAR
Coruripe - Alagoas

-----//Signature//----

Civil Registry _____ Registrar

Birth Certificate No. 1,545

I CERTIFY that, on page 137, of book No. 10A of the Birth Registry, it was registered today the record of Maria das Dores Procopio da Silva

born on June seventh, nineteen eighty-one (1981)

at 12:00 PM at Rocheira Farm, in this city, sex female

daughter of José Antonio da Silva

born in Pernambuco

and Ms. Antonia Procopio

born in Alagoas, both single, residents at Rocheira Farm, in this city

Paternal grandparents are Antonio José da Silva

and Ms. Ana Soares da Silva

and maternal grandparents Manoel Procopio

and Ms. Antonia Maria da Conceição

The declarant was The father

and served as witnesses: those listed in the record

Notes: _____

The above is true and I certify.

Coruripe, December 15, 19 82

-----//Signature//----

Registrar

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: July 31, 2025.

REPÚBLICA FEDERATIVA DO BRASIL

REGISTRO CIVIL

ESTADO DE Alagoas.

COMARCA DE Cerrupe

MUNICÍPIO DE "

1º DISTRITO DE "

Almeida

Oficial do Regiro Civil

Terezinha de Lima Almeida
OFICIAL DO REGISTRO CIVIL
Cerrupe - Alagoas

Nascimento N.o 1545

CERTIFICO que, às fls. 137, do livro n.o "A", de Registro de Nascimentos, foi feito hoje o assento de Maria das Dores Procopio da Silva

nascida aos sete 07 — de fevereiro de mil novecentos e oitenta (1980) digo 81 às 19:00 horas e — minutos, em fazenda Roheira, deste municipio

filha de José antonio da Silva

natural de Pernambuco

e de Dona Antonia Procopio

natural de Alagoas, lavradores residentes na fazenda Roheira, deste municipio

Sendo avós paternos antonio José da Silva

e Dona ana Soares da Silva

e avós maternos manoel Procopio

e Dona Antonia maria da Conceição

Foi declarante o pai

e serviram de testemunhas as do termo

Observações:

O referido é verdade e dou fé

Cerrupe, 15 de dezembro de 1982

Terezinha de Lima Almeida
Oficial

Ord. 7/3 Tipografia São Domingos Ltda.

FEDERATIVE REPUBLIC OF BRAZIL
CIVIL REGISTRY OF NATURAL PERSONS

CIVIL REGISTRY OF NATURAL PERSONS
Terezinha de Jesus Dangui Matté
Delegated Registrar
PIRAQUARA – PARANÁ

BIRTH CERTIFICATE

Name
DAVI PROCOPIO LOPES

CPF
564.528.318-01

Registration
083170 01 55 2013 1 00417 046 0085067 10

Date of birth in full	Day	Month	Year
August sixth, two thousand thirteen	**06**	**08**	**2013**

Time of birth	City of birth	State
8:59 PM	**Curitiba**	**Paraná**

Place of birth	City of birth	State	Sex
Santa Brígida Hospital and Maternity	**Curitiba**	**Paraná**	**Male**

Parent'(s) name	City of birth	State
JOSE EVANDEILTON LOPES	**Buique**	**Pernambuco**

Respective grandparent(s)
LUIZ LOPES DA SILVA; MARIA DAS DORES DA CONCEIÇÃO;

Parent'(s) name	City of birth	State
MARIA DAS DÔRES PROCOPIO DA SILVA LOPES	**Coruripe**	**Alagoas**

Respective grandparent(s)
JOSÉ ANTONIO DA SILVA; ANTONIA PROCOPIO;

Date of registration	Live birth registration number
August seventh, two thousand thirteen	**30-56331468-2**

Notes/Annotations
This certificate includes elements of a correction annotation in the margin of the record. CPF recorded in accordance with Provision 63/2017-CNJ. Nothing further was required for me to certify.

Voluntary registration annotations
NO RECORD.

Certificate drawn up by Emanoely Sposito Vinhas - Clerk of the Civil Registry of Natural Persons of Curitiba - Portão Neighborhood - Paraná - 083170, who electronically signed it on 06/25/2025, in accordance with Article 19 of Law No. 6,015/73 and Article 228-F of the National Code of Norms of the National Justice Inspectorate of the National Council of Justice - Extrajudicial Forum (CNN/CNJ Extra).

I certify that, on 06/25/2025, this certificate was materialized from the system of the National Operator of the Civil Registry of Brazil, and the authenticity of the document and its digital signature was verified by me.

Digital issuance seal: SFRC2xcwb8C9lffv9WMoF415q
CNS No. 083170
Civil Registry Office for Natural Persons
Curitiba - Portão Neighborhood - Paraná

Gustavo de Revorêdo Pugsley - Registrar

Avenida Presidente Arthur da Silva Bernardes, No. 2350 - Portão, ZIP Code: 80320-300 - Phone: (41) 3013-1667
Email: titular@cartoriodoportao.com.br

The content of this certificate is true. I certify.

----//signature//----

Piraquara - Paraná - 144691
Terezinha De Jesus Dangui Matte - Registrar

Digital Seal of Materialization:
SFRC2xcCb8m9zfVV94aoF965g
Amount received for the electronic certificate: R$ 243.15
Amount received for the materialization: R$ 48.47

Rubia Elizabeth Baby
Sworn Clerk

Validation: https://certidao.registrocivil.org.br/validar - Validator Code: 9xvp-sje6
The QR Code of the Inspection Seal from the State Courts of Justice will be available in the validation table of this certificate at the address mentioned below when it is not present on the certificate itself.

IA005844931

I, Carolina Favero da Silva, telephone number 415 425-2508, mailing address P.O. Box 90487, San Diego, CA 92169, certify that the professional translation of this document from Portuguese to English has been performed by myself, a qualified translator fluent in both languages, and that the following is an accurate and complete translation of the document.


_____ Date: July 31, 2025.

REPÚBLICA FEDERATIVA DO BRASIL
REGISTRO CIVIL DAS PESSOAS NATURAIS

CERTIDÃO DE NASCIMENTO

REGISTRO CIVIL DAS PESSOAS NATURAIS
Terezinha de Jesus Dangui Matté
Agente Delegada
PIRAQUARA - PR

Nome
DAVI PROCOPIO LOPES

Número do CPF
564.528.318-01

Matrícula
083170 01 55 2013 1 00417 046 0085067 10

Data de nascimento	Dia	Mês	Ano
seis de agosto de dois mil e treze	06	08	2013

Horário de nascimento	Município da naturalidade	UF
20:59 horas	Curitiba	PR

Local de nascimento	Município de nascimento	UF	Sexo
Hospital e Maternidade Santa Brígida	Curitiba	PR	masculino

Nome do(a) genitor(a)	Município de nascimento	UF
JOSE EVANDEILTON LOPES	Buique	PE

Avô(ó)(s) respectivo(s)
LUIZ LOPES DA SILVA; MARIA DAS DORES DA CONCEIÇÃO;

Nome do(a) genitor(a)	Município de nascimento	UF
MARIA DAS DÔRES PROCOPIO DA SILVA LOPES	Coruripe	AL

Avô(ó)(s) respectivo(s)
JOSÉ ANTONIO DA SILVA; ANTONIA PROCOPIO;

Data de registro	DNV
sete de agosto de dois mil e treze	30-56331468-2

Anotações/Averbações
A presente certidão envolve elementos de averbação de retificação à margem do termo. CPF anotado conforme provimento 63/2017-CNJ. Nada mais me cumpria certificar.

Anotações voluntárias de cadastro
NÃO CONSTA

Certidão lavrada por Emanoely Sposito Vinhas - Escrevente do Registro Civil de Pessoas Naturais de Curitiba - Distrito Portão - PR - 083170, o qual assinou eletronicamente esta certidão em data 25/06/2025, nos termos do artigo 19 da Lei n. 6.015/73, e do artigo 228-F do Código Nacional de Normas da Corregedoria Nacional de Justiça do Conselho Nacional de Justiça – Foro Extrajudicial (CNN/CN/CNJ-Extra).

Certifico que, em data de 25/06/2025, foi materializada esta certidão enviada pelo sistema do Operador Nacional do Registro Civil do Brasil, sendo a autenticidade do documento e da sua assinatura digital por mim conferida.

Selo digital da emissão: SFRC2xcwb8C9Iffv9WMoF415q
CNS Nº 083170
Oficial de Registro Civil das Pessoas Naturais
Curitiba - Distrito Portão - PR

Gustavo de Revorêdo Pugsley - Oficial

Avenida Presidente Arthur da Silva Bernardes, nº 2350 -
Portão CEP: 80320300 - Fone: (41)30131667
e-mail: titular@cartoriodoportao.com.br

O Conteúdo da certidão é verdadeiro. Dou fé.

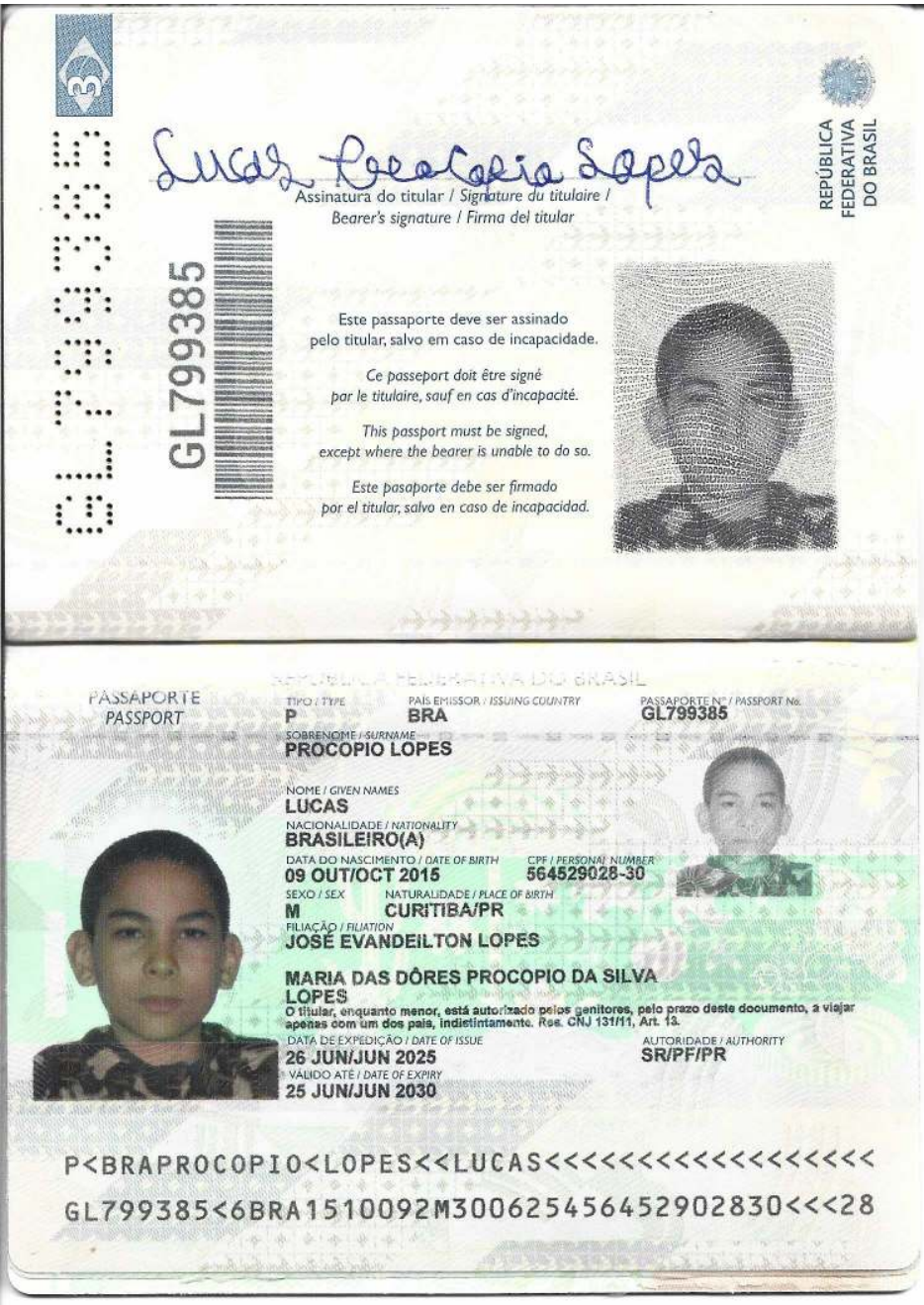
Piraquara - PR - 144691
Terezinha De Jesus Dangui Matte - Oficial
Selo digital da Materialização:
SFRC2xcCb8m9zfVV94aoF965q
Valor recebido pela certidão eletrônica: R$ 243,15
Valor recebido pela materialização: R$ 48,47

Rubia Elizabeth Baby
Escrevente Juramentada

Validação: https://certidao.registrocivil.org.br/validar Código Validador: 9xvp-sje6
O QR Code do selo de fiscalização dos Tribunais de Justiça Estaduais estará disponível na tabela de validação desta certidão no endereço mencionado abaixo quando não estiver presente na própria certidão.

Indústria Gráfica Brasileira Ltda

IA 00584493 1



Assinatura do titular / *Signature du titulaire /*
Bearer's signature / Firma del titular

REPÚBLICA FEDERATIVA DO BRASIL

GL799385

Este passaporte deve ser assinado pelo titular, salvo em caso de incapacidade.

Ce passeport doit être signé par le titulaire, sauf en cas d'incapacité.

This passport must be signed, except where the bearer is unable to do so.

Este pasaporte debe ser firmado por el titular, salvo en caso de incapacidad.

PASSAPORTE
PASSPORT

REPÚBLICA FEDERATIVA DO BRASIL

TIPO / *TYPE* P

PAÍS EMISSOR / *ISSUING COUNTRY* BRA

PASSAPORTE Nº / *PASSPORT No.* GL799385

SOBRENOME / *SURNAME*
PROCOPIO LOPES

NOME / *GIVEN NAMES*
LUCAS

NACIONALIDADE / *NATIONALITY*
BRASILEIRO(A)

DATA DO NASCIMENTO / *DATE OF BIRTH* 09 OUT/OCT 2015

CPF / *PERSONAL NUMBER* 564529028-30

SEXO / *SEX* M

NATURALIDADE / *PLACE OF BIRTH* CURITIBA/PR

FILIAÇÃO / *FILIATION*
JOSÉ EVANDEILTON LOPES

MARIA DAS DÔRES PROCOPIO DA SILVA LOPES

O titular, enquanto menor, está autorizado pelos genitores, pelo prazo deste documento, a viajar apenas com um dos pais, indistintamente. Res. CNJ 131/11, Art. 13.

DATA DE EXPEDIÇÃO / *DATE OF ISSUE* 26 JUN/JUN 2025

AUTORIDADE / *AUTHORITY* SR/PF/PR

VÁLIDO ATÉ / *DATE OF EXPIRY* 25 JUN/JUN 2030

P<BRAPROCOPIO<LOPES<<LUCAS<<<<<<<<<<<<<<<<<<<<

GL799385<6BRA1510092M3006254564529028 30<<<28