

# Jairo Sandino Pastora

(+505) 8526 9627 | jai\_sandino@hotmail.com | LinkedIn: jairosandino

## Education

### University of Arkansas • USA

M.Sc. in Industrial Engineering | GPA: 3.8 | May 2022

### Universidad Centroamericana • Nicaragua

B.Sc. in Industrial Engineering | GPA: 3.3 | Nov 2016

## Skills

- **Programming:** Python (NumPy, Pandas, Matplotlib), R, SQL, Minitab, AMPL, Tableau, Power BI, MS Office
- **Machine Learning:** Deep Learning (NNs, CNNs), Regression, Logistic Regression, Classification, SVM, Clustering, Random Forest, Dimensionality reduction
- **Statistics:** Hypothesis testing, AB testing, ANOVA, Distribution fitting
- **Other statistical techniques:** Markov chains, Reliability modeling, Bootstrap, EM algorithm

## Work Experience

### Banpro Grupo Promerica

Managua, NIC

**Lead Data Scientist** | May 2022 – Feb 2024

- Overlook the Advanced Analytics team.
- Responsible for solving business problems, predicting, and measuring outcomes, exploring new opportunities, and generating insights in collaboration with business units.
- Developed and successfully deployed multiple models such as: ATM forecasting for all national cash demand, credit card and loans origination risk models, Business POS risk model to accelerate approvals and some others Customer Behaviors and Segmentation analysis.

### University of Arkansas

Fayetteville, AR, US.

**Teaching Assistant** | Jan 2021 – May 2022

- Mentored undergraduate junior classes consisting of different engineering majors where I assisted two courses: INEG3313 – Probabilities and Statistics and INEG3513 - Manufacturing Processes. I was responsible for preparing class's plans, monitoring projects, exams, drill sessions, and labs. I was also the responsible for conducting office hours.

**Data Analyst** | Aug 2021 – May 2022

- Develop statistical models for the Career Development Center that measure and predict student engagement levels. This helps to build actionable tools that identify students who most need the career center services.
- This project is in the field of machine learning, data analysis, and statistical modeling.
- Machine Learning: Investigation of the factors that determines a student level of engagement with the CDC and future engagement levels forecast, using different methods and comparison (Ridge, RF, NN, LSR) - Coded in R.

### Banpro Grupo Promerica

Managua, NIC

**Risk Analyst** | Feb 2018 – Jul 2020

- Evaluated portfolio performance for natural and legal entities classified as high-risk using Moody's Analytics and other financial tools to properly assess and assign risks qualifications based on their financial, legal, and operational risk.

**Operations Supervisor** | Mar 2015 – Feb 2018

- Oversaw the Operations team within the Personal and Home loans credit department. Regular activities included planning production schedules, authorizing operational disbursements, insurance payments and certified checks signature.
- Responsible for the automation of eight projects in the loan and credit card system allowing automatic credit and debit transactions via system interface, reducing operation time from 5 to 3.5 minutes per activity.

**Quality Assurance Supervisor** | Mar 2014 – Mar 2015

- Ensured transactions originated in operations department complied with internal bank policies and national credit regulations. Managed strategic projects that allowed the bank to quicken its quality control cycle for credit operations department.
- Developed a model to audit credit operational transactions required quarterly by VISA. The model validated local files prior to submission ensuring no under or overreporting was made; this project led to a significant reduction in billing and processing cost of about \$20K per year.

## Relevant Coursework

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**University of Arkansas:** Modern Statistical Techniques, Optimization Theory, Network Optimization, Project Management, Data Analytics, Design of Experiments, Supply Chain Management.

**Coursera:** Improving Deep Neural Networks, Insights from Data with Big Query, Data Analysis with R Programming, Structuring Machine Learning Projects, Convolutional Neural Networks.

## Research Interest

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**Research areas:** Demand Uncertainty reduction, Impact of Information Technology on Bullwhip Effect, Supply Chain Disruption Occurrence, Multivariate Statistics, Bayesian statistics, Reliability modeling

## Professional Organizations

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**IISE** – Institute of Industrial and Systems Engineers

**INFORMS Campus Chapter**– Institute for Operations Research and the Management Sciences

**PMI** – Project Management Institute

## Publications

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Sandigo, J., **Sandino, J.**, Velasquez, E. (2010) Agro-Industrial Feasibility of the Transformation Processes of Pelipita Banana in RAAS Nicaragua.

In 2010 Innova Fair at Universidad Centroamericana UCA, Nicaragua. **Award-winning**

## Honors & Awards

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<b>Foreign Fulbright Student Program</b> – <i>U.S. Secretary of State &amp; University of Arkansas</i>	<i>2020 – 2022</i>
<b>Industrial Engineering Honor Society Member</b> – <i>University of Arkansas</i>	<i>2021 – 2022</i>
<b>Engineering Honors College Award</b> – <i>Universidad Centroamericana (UCA)</i>	<i>2009 – 2014</i>
<b>Global Undergraduate Exchange Program</b> – <i>U.S. Secretary of State &amp; University of Arkansas</i>	<i>2011 – 2012</i>
<b>Innovation Fair &amp; Young Researchers</b> – <i>Universidad Centroamericana (UCA Nicaragua)</i>	<i>2011 – 2012</i>