JUAN FRANCISCO PALMEROS BARRADAS

Mexico City | +52 55 8687 3474 | palmerosjuanfrancisco@gmail.com | Personal website | Github

SUMMARY

Data Science expert with a proven track record of leveraging machine learning and data analysis to drive business results in the retail, finance industry and public policy field. Proficient in Python, Pyspark, Databricks, R, and Azure (Azure Machine Learning, Data Factory, Storage, Databricks), AWS Cloud services. Visit my personal website (https://juanpalms.github.io/JuanPalmeros_Portfolio/) for more dynamic and up to date information.

EDUCATION

Master's in Data Science   Mexico August 2022 – June 2023

Mexico Autonomous Institute of Technology (ITAM).   GPA: 9/10

Specialized in Machine Learning, Data Mining, Data Architecture, Statistics, Bayesian Statistics, and Causal Inference.

Bachelor's in Economics   Mexico August 2015 – July 2019

Center for Economic Research and Teaching (CIDE)   GPA: 9.2/10

Specialized in Microeconomics, Econometrics, Microeconometrics, and Applied Econometrics.

EXPERIENCE

Senior Data Scientist

Capgemini - Coca-Cola Femsa Vendor, Mexico January 2024 - Present

- Led the development and deployment of a recommendation system that personalizes product recommendations for clients in Mexico, Brazil, Colombia, Paraguay, and Costa Rica. This project leverages diverse algorithms to enhance customer engagement. I productionized the system using a batch endpoint employing Databricks (inference and model training), Data Factory (pipeline) and Azure Blob storage.
- **Demand-based Pricing Strategy:** Developed and proposed a dynamic pricing model based on demand forecasts, utilizing machine learning and traditional econometric methods to optimize profitability under varying market conditions.

Senior Data Scientist

Axity - Walmart Vendor, Mexico October – January 2024

- Conducted Market Basket Analysis using a sophisticated, combined strategy of FP-growth algorithm and NLP approaches. This method effectively and automatically assigns promotions to products, while also analyzing transaction databases to identify potential substitutes. This approach takes into account the impacts on complementary and substitute goods, ensuring a more targeted and efficient promotional strategy.

Data Scientist

Financial Group Banorte, Mexico June – October 2023

- Engineered a Bayesian inference model to evaluate the effectiveness of our banking infrastructure in capturing checking account balances and the account quantity on a county level.
- Formulated a municipality classification framework to pinpoint priority regions for business, considering profitability and market potential.

- Executed a comprehensive historical analysis on Banorte's market stance against competitors in terms of banking infrastructure (ATMs and branches) and acquisition of open market and payroll accounts.

Financial Researcher-data scientist

Central Bank of Mexico, Mexico August 2019 – June 2023

- Spearheaded the first representative survey in Latin America assessing the financial health of individuals. [View survey results (in Spanish)](#)
- Played a key role in amending the [National Survey of Financial Inclusion 2021](#), recognized as one of the largest financial inclusion surveys globally.
- Designed an unsupervised machine learning model to ascertain optimal locations for financial infrastructure, aiding public investment in commercial bank branches.
- Furnished ongoing insights regarding the financial system landscape in Mexico, empowering informed decision-making for stakeholders.

Stack: python (pandas, numpy, matplotlib,seaborn,scikit-learn, scipy, selenium, beautifulsoup)

Data Scientist (External Consultant- Temporary project)
Ozmo Futures, Mexico August – November 2022

- Project 1: Spearheaded a customer segmentation project to boost market share for a prominent Mexican commercial bank. Trained an unsupervised machine learning model for customer profiling based on financial behavior in order to provide a description for decision takers that will allow them to target different groups with different marketing strategies. As a final result I delivered a comprehensive Shiny app dashboard including the profiling results.
- Project 2: I conducted a big data analysis project using historical data from PROFECO to identify the evolution of chocolate brand prices in Mexico. The use of this dataset required cloud processing as the amount of information could not be processed in a local environment.

PROJECTS

Web development project
I coded my online portfolio using the three basic web development tools: 1) HTML, 2) CSS, and 3) JavaScript. On my online portfolio, you can find more details about my projects and work experience.

Anime Analysis website

This project is a comprehensive data science implementation focusing on anime data. It spans from data extraction through web scraping of MyAnimeList to deploying a web page in a Quarto environment. This project demonstrates the full data workflow, from acquisition to deployment, providing a transparent and replicable approach for anime data enthusiasts.

Deforestation Image Recognition

- Orchestrated a Deep Learning project to classify deforestation images from Georgia, USA.
- Trained Convolutional Neural Networks via a transfer learning strategy.

ADDITIONAL INFORMATION

Languages: English (TOEFL iBT 104/120), French (DALF C1, 85/100), Spanish (Native)