JUAN FRANCISCO PALMEROS BARRADAS

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SUMMARY

Data Science expert with a proven track record of leveraging machine learning and data analysis to drive business results in the finance industry and public policy field. Proficient in Python, R, and 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 Autonomous Institute of Technology (ITAM).
Mexico City, Mexico August 2022 – June 2023 GPA: 9/10
Specialized in Machine Learning, Data Mining, Data Architecture, Statistics, Bayesian Statistics, and Causal Inference.

Bachelor's in Economics

Center for Economic Research and Teaching (CIDE), Mexico City, Mexico August 2015 – July 2019
GPA: 9.2/10
Specialized in Microeconomics, Econometrics, Microeconometrics, and Applied Econometrics.

EXPERIENCE

Data Scientist

Financial Group Banorte, Mexico June – present 2023

- Conducted an statistical analysis with principal component analysis to identify the competitors infrastructure strategy in order to improve Banorte's ATM and branches network.
- Implemented a hierarchical Bayesian model in order to gauge the impact of infrastructure investment in bank deposit balances using bank infrastructure investments as predictor.
- Perform AB testing to evaluate the impact of new features in the mobile app comparing two different

Stack: python (pandas, numpy, matplotlib,cmdpystan, scikit-learn,streamlit, scipy, selenium, beautifulsoup, seaborn, pickle), SQL.

Financial Researcher-data scientist

Central Bank of Mexico, Mexico August 2019 – June 2023

- Pioneered the development of the first Latin American national survey to measure Financial Health and developed indicators to assess people's financial health levels.
- Employed an unsupervised machine learning algorithm (k-means clustering algorithm) in order to identify optimal financial infrastructure allocation in Mexico, resulting in a 120 million mexican pesos investment.
- Kept track of financial inclusion in Mexico and identified financial inclusion gaps in different vulnerable groups.
  Stack: python (pandas, numpy, matplotlib,seaborn,scikit-learn, scipy, selenium, beautifulsoup)
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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.

Stack: python (pandas, numpy, matplotlib,scikit-learn, scipy,seaborn, pickle, pyspark), SQL, R (shiny). AWS (Athena)

TECHNICAL SKILLS

Python: pandas, sklearn, scipy, tensorflow, keras, matplotlib, seaborn, pickle, beautifulsoup, pylint, boto3, awswrangler, pyspark. **R**: Tidyverse, rstan. **Cloud AWS**: S3, EC2, Athenea, EMR **SQL:** Postgresql, Sqlite **Version Control**: Github **Environments**: Docker, Conda, Venv **Web development:** HTML, CSS and JavaScript.

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.

Handwritten Recognition

- Developed a Shiny app dashboard that predicts user-inputted handwritten digits.
- Trained Support Vector Machine and Random Forest Classifiers.
- Implemented a dockerized environment for application and databases isolation.

Web Scrapping of The Simpsons TV Show

- Built a pipeline for automated data extraction of The Simpsons' episodes.
- Designed a Data Lake in an AWS S3 bucket.
- Created a Streamlit dashboard for generating episode statistics and inferences.

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)

Continuing Education:

- Micromaster in Data Science, University of California San Diego (September 2019 – 2020)
- Data Science with R: Tidyverse, Udemy (2022 – Present)
- Bash Scripting: From Zero to Automation, Udemy (2022)