

ROBERTO ANDRADE

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EDUCATION

UNIVERSITY OF NOTRE DAME

Master of Science in Business Analytics

Notre Dame, IN

May 2023

INSTITUTO TECNOLOGICO AUTONOMO DE MEXICO

Bachelor of Science in Business Engineering

Mexico City, Mexico

May 2021

PROFESSIONAL EXPERIENCE

CORPORACION ANDINA DE FOMENTO (CAF)

Jr Consultant (Data Analyst & Data Engineer)

Mexico City, Mexico

September 2021 - August 2022

- Collaborated in mapping business processes for the consulting teams' projects to ensure accountability within the team and standardized outcomes.
- Improved delivery schedule to the multilateral bank's non-profit customer to once per week from once every three weeks.
- Executed and optimized search algorithms to build the centralized database of matching entries. Enhanced runtime by 75% while losing only 3% of matches.
- Organized and led meetings with the client to advocate why the project could and should be executed on a wider scale, as the new approach of the open-source program was a cost-saving alternative.

OPEN PROJECTS

Solar Energy Farms on idle Land: a Business Opportunity

([Link to summary](#))

- Leveraged Python and open-source data to identify a 100 million dollar sales-per-year opportunity for medium to large entrepreneurs who invest in certain solar farm projects.

Market Basket Analysis: Predicting the next item in Instacart

([Link to summary](#))

- Applied the apriori algorithm to gain insights into consumer behavior based on over three million Instacart transactions of data, to increase transactions and customer retention by improving app suggestions.

Will a Client Repay a Loan? Algorithms to Predict Customer Defaulting

([Link to summary](#))

- Used feature engineering, developed and tuned classification models to assess whether a customer would pay the bank back. Explained the financial benefits of implementing and continually tuning such models.

TECHNICAL SKILLS

Programming: Python (Scikit-learn; SciPy; NumPy; Simulation & Optimization; Web scraping); R; SQL; Java.

Statistics: Descriptive and frequentist inferential stats; Time Series Analysis; Survival Analysis.

Machine Learning: Regression; Regularization; Naive Bayes; SVM; CART; XGBoost; K-NN; Apriori; KMeans; Hierarchical Clustering; PCA; CNN; RNN; BERT; Transformers.

Tools: Linux Shell; Version control through Git; AWS.

Languages: Spanish (Native), French (Basic A2).

LEADERSHIP & SERVICE

ALCANCE USL

Mexico City, Mexico

Volunteer

December 2020 - December 2021

- Taught Spanish weekly for two semesters to children from underserved neighborhoods around Mexico City; partnered in developing the curriculum and a system to help other volunteers stay on track.
- Arranged activities for elderly people during the Covid-19 lockdown; guided the volunteers to ensure the nursing home could fulfill the activities in a way that optimized the budget and everyone's restrained schedules.
- Mentored the next cohort of volunteers through team-building activities and assigned tasks to help them acclimate to the organization's management and properly meet volunteer expectations.

INTERESTS

- Hispanic and Latin-American literature; Popular Science; Chess; Mechanical Watches.