

Quilvio Hernandez

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Education

University of California Davis, College of Letters and Science
Bachelor of Science in Applied Mathematics (MORSE)

Davis, CA
Expected June 2021

- Cumulative GPA: 3.4/4.0
- Relevant Coursework: Mathematics for Data Science, Machine Learning, Big Data Analytics, Optimization
- Hispanic Scholarship Fund Scholar (\$1000), University Grant (\$9000)

Professional Experience

DoubleLine Capital LP

Los Angeles, CA

Data Analyst Intern, Operations Team

June 2020 - August 2020

- Utilized python to analyze 100,000+ rows of RIA data to generate sales leads, which increased profits by 15%.
- Visualized patterns using matplotlib and seaborn to identify seasonal, geographic, and asset trends showing nearly 2 billion in sales opportunities.
- Presented results to sales teams and automated a monthly report to continue providing insights after my departure.
- Created robust asset returns outlier detection system using python increasing accuracy by 40%.
- Performed correlation analysis to show highly correlated relationships between products and asset classes to form clusters of appropriate size to apply mean, standard deviation, and interquartile range.
- Automated process to produce daily performance check report for the trading teams to facilitate market research.

Sacramento Kings

Sacramento, CA

Business Analytics Intern, Business Intelligence Team

September 2019 - March 2020

- Utilized R to implement supervised machine learning techniques to forecast ticket sales.
- Wrangled data using SQL and webscraping to make a training dataset spanning 5 years' worth of basketball and consumer data.
- Synthesized findings for stakeholders with a Tableau dashboard and highlighted a potential 25% increase in profits shown by backtesting the model. (Realized profits unknown due to COVID-19)

Skills

Programming Languages: Python, R, MATLAB, VBA, HTML, C

Data Science & Miscellaneous Technologies: Data science pipeline (cleaning, wrangling, visualization, modeling, interpretation), Time series, APIs, Webscraping, SQL, NoSQL, RShiny, Tableau, Stata, Excel, Mathematics

Libraries and Packages: pandas, numpy, matplotlib, seaborn, scikit-learn, PyTorch, tidyverse, caret, rvest, ggplot2, plotly

Modelling: Regression (Linear, Random forests (RF), XGBoost, Neural networks), Classification (RF, Logistic regression, k-nearest neighbor), Clustering (k-means, PCA, Gaussian mixed models), NLP (Word2vec)

Projects and Leadership

Student Instructor

Davis, CA

Le&S Ambassadors' Guide to the UCD Galaxy (UC Davis)

January 2021 - Present

- Collaborated with 9 other student ambassadors to design a student-centric introduction to campus and university life.

President

March 2019 - June 2020

Moneyball Club (UC Davis)

- Taught 15 club members how to webscrape, manipulate datasets and plot graphs in R with sports data.
- Third place in Sacramento Kings Case Competition for assessing risk of foul trouble-based substitutions.
- Led team of 3 students in project to predict engagement of NBA Instagram posts.

Founder & Treasurer

Davis, CA

Chicanx-Latinx Collegiate Association (UC Davis)

September 2018 - June 2020

- Grew club from 5 to 70+ members by networking with campus Chicanx center and other clubs.
- Developed strong relationship with Chicanx Latinx Alumni Association resulting in 10 internships for our members.
- Set up workshops and guest speakers on topics such as mental health, career development, and graduate school.

UC Davis Department of Economics

Davis, CA

Undergraduate Research Assistant (UC Davis)

September 2018 - March 2019

- Assisted in literature review of 10 theoretical economic research papers on consumer behavior, herding, and bubbles to construct a mathematical model for level-k predatory trading.
- Presented mathematical proofs, analysis, and extension proposals of papers to research supervisor.