

ALEXIS CASAS

(669) 271-9505 ◊ aicasas@dons.usfca.edu ◊ alexiscasas.com
https://www.linkedin.com/in/alexiscasas/ ◊ https://github.com/aicasas

EDUCATION

University of San Francisco, CA

August 2016 - Graduation May 2020

BS in *Physics*

Cumulative GPA: 3.52

Minors in *Business Analytics & Physics Engineering*

Honors: Sigma Pi Sigma Member, Clare Boothe Luce Scholar, Women in Physics Communications Chair

CAREER OBJECTIVE

Hardworking and dependable individual, with a profound understanding of mathematics and genuine passion to learn. Currently seeking to apply problem solving and analytical abilities to craft business solutions from data

PROJECTS

Improving Bzzt Podtaxi Operations

Organized, cleansed, and merged large geographical data sets in R. Then, applied K-Means Clustering to identify different boroughs within Stockholm, Sweden and determine optimal Podtaxi starting points.

Covid-19 Predictions and Time Series Forecasting

Investigated Random Forest's power over Decision Tree's while predicting who is most likely to be hospitalized for Covid-19. Employed Feature Ranking and examined bias through ROC Analysis and K-Fold Cross Validation. Found ARIMA to outperform Random Forest for time series forecasting the number of cases in the US.

Predicting Restaurant Reviews

Conducted sentiment analysis using NLP to classify customer reviews into positive or negative. Performed SVM, KNN, and Logistic Regression to calculate the probability of receiving a recommendation from each user. ROC analysis provided confidence that SVM outperformed the others with a resulting 79.5% prediction accuracy.

Titanic Survival Predictions: Kaggle Competition

Built a logistic regression model which classified the binary value of survival for the Titanic shipwreck. Encoded and factored relevant variables and tested which age groups, genders, and ticket holders were most likely to survive.

Chinook Music Label Analysis

Thoughtfully crafted complex SQL queries to confidently answer common business questions and drive informed decisions. Generated python visualizations via Jupyter Notebook to illustrate important summary statistics.

SKILLS

Programming: SQL, R, Python, Tableau, LaTeX, Jupyter Notebook, Microsoft Excel

Technical: Problem Solving, Data Visualization, Data Cleansing, Predictive Modeling, Classification, Supervised and Unsupervised Machine Learning, Regression, Decision Trees, SVM, KNN

Certificates: Intermediate SQL for Data Engineering, APIs and Web scraping, Intermediate Python

RELEVANT EXPERIENCE

Business Analytics Department, University of San Francisco

January 2020- May 2020

Teaching Assistant: Advanced Business Analytics in R

- Guest lectured on using Google APIs as a data visualization technique for K-Means Clustering in R.
- Improved students' understanding in machine learning algorithms while enhancing their critical thinking techniques.
- Thoughtfully crafted homework solutions, carefully graded student work and provided constructive critical feedback.
- Enthusiastically investigated machine learning techniques and problems that resulted in new lecture material.

Business Analytics Department, University of San Francisco

August 2019- May 2020

Research Assistant

- Achieved and exceeded weekly data science goals set by research advisor while working on large software projects.
- Organized public transit data into data frames and worked with Google APIs to generate transit models in Python.
- Read a variety of machine learning papers and communicated key points in an understandable manner.
- Collaborated with professors to design a presentation on data valuation for upcoming academic conferences.
- Assisted in drafting papers for publication via LaTeX under time constraints.

Physics and Astronomy Department, University of San Francisco

January 2019- March 2020

Physics and Math Tutor

- Conducted weekly tutoring sessions for Methods of Mathematical Physics and Introduction to Physics.
- Transformed students' understanding of material by developing and enhancing their analytical techniques.
- Analyzed and reviewed department lecture material, homework solutions and exams before released to students.