ALEXIS CASAS

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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 data analyst, with a genuine passion to tackle challenging projects and discover trends. Currently seeking to apply problem solving and analytical skills to transform data into business insights.

RELEVANT EXPERIENCE

Business Analytics Department, University of San Francisco *January 2020- May 2020*
Teaching Assistant: Advanced Business Analytics in R

- Improved students' understanding of using machine learning algorithms to help solve business problems.
- Guest lectured on using Google APIs as a data visualization technique for K-Means Clustering in R.
- 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 effectively communicated key points to non-technical audience.
- Collaborated with professors to design a presentation on data valuation for upcoming academic conferences.
- Assisted in drafting papers for publication via LaTeX while 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.

SKILLS

Programming:	R, Python, SQL, Tableau, LaTex, Jupyter Notebook, Microsoft Excel, Version Control
Technical:	Data Visualization, Problem Solving, Data Cleansing, Predictive Modeling, Classification, Supervised and Unsupervised Machine Learning, Regression, Decision Trees, SVM, KNN
Certificates:	Intermediate SQL for Data Engineering, APIs and Webscraping, Intermediate Python

PROJECTS

Improving Bzzt Podtaxi Operations
Organized, cleansed, and aggregated large data sets in R to optimize business operations. Then, applied K-Means Clustering to identify different boroughs within Stockholm, Sweden and determine optimal Podtaxi starting points.

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.

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.

Coffee and Tea Production Analysis
Created and presented Tableau dashboards identifying which markets caused the largest dip in revenue. Some story-telling visualizations include: Pareto Graphs, Waterfall Charts, and Animated Time Series.

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.