Lance J. Fernando

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Education

B.S. in Data Science | Concentration in Computational Analytics **Fall 2014 - expected Spring 2018**
University of San Francisco
Cumulative GPA: 3.81 | Major GPA: 3.66

Skills

- Data Analysis **(R/Python)**
- Machine Learning **(R)**
- Visualization **(R, D3.js, Tableau)**
- Querying **(SQL)**
- OOP **(Java)**
- Web-Scraping **(R, Python, Java)**

Certifications

Designing, Running, and Analyzing Experiments **Spring 2018**
Coursera | University of California, San Diego
https://www.coursera.org/account/accomplishments/certificate/KVEDKCDACQ68
Learned best industry practices in conducting and interpreting results from user-centered experiments in the UX and HCI domain. Applications for A/B testing and other advanced statistical tests were performed in **R**

Projects

Spam Detection Using Naive Bayes **Spring 2018**
https://ljfernando.github.io/SpamDetectionNaiveBayes/ Group Project
Implemented a Naive Bayes Classifier from scratch in **R** to detect spam emails based on their content. Extracted over 170 features from our corpus of raw emails and achieved a cross-validated misclassification error rate of 5%

Visualizing Ecological Footprint **Spring 2017**
https://ljfernando.github.io/project-Ljfernando/ Individual Project
Created an interactive dashboard that joins a mercator map with various other plots to express the proportion of impact each region has on our global footprint. Visualizations produced using **Javascript** and **D3.js**

One-Stop Shop Regression Function **Spring 2017**
https://ljfernando.github.io/Regressience/ Group Project
Programmed a reusable function that runs linear regression, shrinkage methods and regression trees in **R**. It then outputs cross-validated results with visualizations to assess each algorithm's success

Analysis of SF Bikeshare Activity **Fall 2016**
https://ljfernando.github.io/BikeSharing/ Individual Project
Conducted analyses of the SF Bikeshare program and modeled its daily activity with various regression algorithms. Included covariates regarding seasonality, weather, gas prices and occurrences of significant SF events

Movie Recommender **Fall 2016**
https://github.com/Ljfernando/MovieRecommendation Individual Project
Developed movie recommendations using **Python** that takes in a user's inputted movie ratings and outputs movies based on user-user collaborative filtering using 100k movie ratings and multiple distance metrics

Experience

Research Intern **August 2017 - Present**
CA Technologies (Santa Clara, CA)
- Program a backend visualization recommendation system in **Python** and **R**
- Create interactive visualizations using **plotly.js** and **d3.js** with **react.js+redux** as well as **angular.js**
- Conduct literature review to aid in the development of the visualization recommendation system

Data Intern **December 2016 - Present**
The Climate Music Project http://www.theclimatemusicproject.org
- Analyzed and aggregated historic and future climate data using **R** and visualize data using **ggplot2**
- Scrape google scholar search results using **R**
- Assisting in developing an open-sourced climate-music tool

Undergraduate Research Assistant **June 2017 - Present**
Visualization and Graphics Lab http://vgl.cs.usfca.edu/
- Design user studies deployed on **MTurk** using **JS**, **Python** and **R** and provide analyses of results
- Conduct literature review and assist in writing academic papers