Lance J. Fernando

Cell: 510-557-2626 | LinkedIn: in/ljfernando
Email: Ljfernando@usfca.edu | Personal Site: ljfernando.github.io

Objective

Gain analytical experience through an internship or research opportunity, learning the whole process of leveraging data to produce valuable insights and solutions to the problem at hand.

Skills

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

Education

B.S. in Data Science w/Concentration in Computational Analytics (Fall 2014 - Present)
Cumulative GPA : 3.76

Experience

Data Intern (December 2016 - Present)
The Climate Music Project (http://www.theclimatemusicproject.org)
- Cleaned and merged climate data retrieved from real RCP projections and other sources using **R**.
- Plotted in **ggplot2** analyzing trends and patterns in order to map variables to music attributes in the composition.

Classroom Technology Technician (September 2014 - Present)
University of San Francisco ITS
- Provide on call IT support for our classroom A/V equipment and client computers(Windows & Mac)
- Assist in on-site repairs and installation of smart room equipment

Assistant Music Director (December 2014 - May 2016)
University of San Francisco ASUSF VOICES Choir
- Conduct and direct rehearsals for five different choir ensembles as large as 60 members
- Arrange and edit compositions to fit the voicing of ensembles

Projects

Analysis of SF Bikeshare Activity (*USF Fall2017: CS451 Data Mining)*
- Our team utilized linear regression, bagging and random forests to create models that predict the number of Bikeshare rentals in San Francisco based on time, weather and significant city events such as a Giants home game. Data cleaning, analysis and modeling performed in **R** environment.

Collaborative filtering algorithm for Movie Recommendations *(Personal Project)*
- Using the *MovieLens* dataset of 100k user ratings for over 1500 different movies, I developed a movie recommendation output based on a user's rating using Cosine, Jaccard or Pearson correlation metrics. Programmed in **Python.**

Visualizing SFFD Records for December 2016 *(USF Spring2017: CS360 Data Visualization)*
- Using data from SFOpen Data portal, we created multivariate visualizations exploring the response times and the types of calls that came in from districts surrounding USF. Prototypes were first created in **Tableau** and final visualizations were created using **D3.js** and placed into a final website.

Predicting Sale Price for Housing in Ames, Iowa *(Personal Project)*
- Created a model predicting the sale price of a given house using a dataset with over 3000 observations and 79 attributes describing the house. In **R**, I used MICE(multivariate impute by chained equations) to impute missing values as well as GBM(Generalized Boosted Regression Models) to reach a predicted sale price amount.

Huffman Encoded Text file Compression *(USF Spring2016: CS 245 Data Structures & Algorithms)*
- Developed a program using **Java** that essentially decreases the size of the original file.

Shortest Path w/ Dijkstra's algorithm *(USF Spring 2016: CS 245 Data Structures & Algorithms)*
- Combined data structures such as Graphs, Binomial Queues, Hash Tables, and Lists to implement Dijkstra's algorithm to find the shortest path between cities using **Java**.