Lance J. Fernando

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Objective

Gain analytical experience through an internship or research opportunity working with data and learn how to develop insights and data products.

Skills

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

Education

University of San Francisco Cumulative GPA : 3.76 2014 - Present

B.S. in Data Science w/ Computational Analytics concentration
and Minor in Music (in progress)

Experience

Climate Music Project 2017 - Present

Data Intern

- Assist in developing the methodology for turning climate data into a musical composition
- Preprocessed data and developed plots using R to provide parameter mapping of data in the composition.

University of San Francisco ITS 2014 - Present

Classroom Technology Technician

- 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
- Troubleshoot equipment regularly to ensure proper functionality of all smart room devices

University of San Francisco VOICES Choir 2015 - 2016

Assistant Music Director

- 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

- Performed regression analysis on SF Bikeshare data. Utilized linear regression 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 preprocessing, analysis and modeling performed in **R** environment.
- Implemented a collaborative filtering algorithm to recommend movies based on ratings from other users. After rating several movies, the user can ask for recommendations based on Cosine, Jaccard or Pearson correlation metrics. Data includes 100k user ratings for over 1500 different movies. Programmed in **Python.**
- Created a text file compression program in **Java** using Huffman coding that essentially decreases the size of the original file.
- Utilized Dijkstra's algorithm in **Java** to find the shortest path between the main vertex and all other vertices in the graph. Combined data structures such as Graphs, Binomial Queues, Hash Tables, and Lists.