# Lance J. Fernando

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## Education

**B.S. in Data Science** | Concentration in Computational Analytics **Fall 2014 - expected Spring 2018**
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)**

## Experience

**Research Intern** **August 2017 - Present**
CA Technologies (Santa Clara, CA)
- Program a backend visualization recommendation system in **Python**
- Create interactive visualizations using **plotly.js** and **d3.js** with **react+redux** infrastructure
- Conduct literature review

**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**
University of San Francisco Visualization and Graphics Lab
- Design user studies deployed on **MTurk** using **Javascript**, **Python** and **R** and provide analyses of results
- Conduct literature review and assist in writing academic papers

**Grader for Probability With Applications (MATH 370)** **August 2017 - Present**
University of San Francisco
- Grade weekly assignments for this upper division math course

**Classroom Technology Technician** **September 2014 - May 2017**
University of San Francisco ITS
- Provide on call IT support and repairs/updates for smart classroom A/V equipment and computers

## 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 features from our database of emails and achieved a cross-validated misclassification error rate of 5%

**Visualizing Ecological Footprint** **Spring 2017**
https://usf-cs360-2017.github.io/project-Ljfernando/ Individual Project
Created an interactive dashboard visualizing a region's footprint on the environment using **Javascript, D3.js, Tableau** and **Github Pages**

**One-Stop Shop Regression Function** **Spring 2017**
https://ljfernando.github.io/Regressience/ Group Project
Created an open-sourced function that runs various regression algorithms including Linear Regression, Lasso, Regression Trees and others, then compares the accuracies via cross-validated results using **R** and **RMarkdown**

**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 using **R** and **RMarkdown**

**Movie Recommender** **Fall 2016**
https://github.com/Ljfernando/MovieRecommendation Individual Project
Developed a movie recommendation program using **Python** that utilizes collaborative filtering of user ratings from the MovieLens 100k dataset and provides recommendations based on your inputted movie ratings