

Skills

Languages : C, C++, Java, R, HTML & CSS, Swift, SQL

Softwares & Databases : Git, Vim, GDB, Android Studio, Xcode, PostgreSQL

Education and Coursework

Stanford University

March 2016

Machine Learning

Computer Science, University of California, Davis

March 2016

Data Structures

Operating Systems

Database Systems

Regression Analysis

Algorithm Design

Theory of Computation

Computer Networks

Statistical Analysis and Probability

Experience

• Undergraduate Researcher, University of California, Davis

June - August 2015

- Conducted study analyzing 7.5 million births challenging the assumption low birth weight causes infant mortality
- Developed multivariate linear regression model analyzing the predictability in determining newborn health/survival
- Used statistical analysis methods such as multivariable linear approximation, box-plots, and curve normalization to determine the accuracy of research and conclusions

• Tutor, UC Davis Computer Science Club

March - June 2014

- Taught C programming language concepts and Unix tools (ViM, Make, GDB)
- Held weekly one-on-one and group tutoring sessions and answered coursework questions through email
- Coordinated with team of 14 tutors to host midterm and final exam review sessions
- Adapted teaching style to fit individual needs and developed supplementary study aids to facilitate understanding of application development

Projects

• Network Simulations | Python 3, SimPy

October - December 2015

- M/M/1 Queuing System
 - Simulated queuing system with a finite buffer to predict packet loss as a function of buffer size and traffic intensity
- Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Protocol
 - Simulated protocol with binary exponential backoff algorithm and linear backoff algorithm

• 7 Minute Workout | Swift, Xcode, Cocoapods, Youtube API

June - August 2015

- Developed iOS app that loads series of exercises consecutively with countdown timer, video, and text description

• Mi2U | Android Studio, PostgreSQL, Google Maps API

March - June 2015

- Developed Android application allowing users to coordinate parcel delivery times
- Locally hosted server and database records user information and current locations
- Utilizes Google Maps to calculate shortest delivery routes and times

• Bike Sharing Data Analysis | R

March 2015

- Developed regression model by sorting and querying data variables to analyze ridership to determine factors affecting total number of monthly bike rentals in Irvine, CA

• Travel and Transportation Pattern Analysis | C++, PostgreSQL

December 2014

- Create database schema for NHTS & EIA datasets loading data into PostgreSQL database using C++
- Calculated monthly percentage of transportation CO2 emissions attributed to household vehicles (3/2008 - 4/2009)
- Calculated plugin hybrid vehicle related CO2 emission changes over duration of survey