

# Gloria Chen | [gj-chen.github.io](https://github.com/gjchen)

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## Skills

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

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

API & Frameworks : Bootstrap, Cocoapods

## Education and Coursework

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### 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

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### • 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

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### • 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
- Used confidence intervals, interaction terms, k-Nearest-Neighbor algorithm to test result accuracy

### • 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