# Gary Cheng

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## EDUCATION

**University of California, Berkeley** **GPA: 4.0**

B.A. Computer Science | Anticipated Graduation: 2018

- *Relevant Coursework*: Algorithms, Data Structures, Intro to Computer Science, Discrete Math & Probability, Computer Architecture, Linear Algebra and Differential Equations
- Awarded place on the Dean's List (Fall '15, Spring '16)

## LANGUAGES

*Proficient:* Java, Python, C, SQL, Scheme, Swift (iOS)
*Familiar:* HTML, CSS, JavaScript, Node.js

## EXPERIENCE

**Teaching Assistant – Data Structures Class** **Jan '17 – Present**

*Berkeley Computer Science, Berkeley*

- Teaching a section and lab of ~30 students every week, preparing supplemental discussion slides to aid student understanding in learning about data structures, working in office hours to resolve student issues
- Working on the Data Analysis team, observing trends in office hour, grading, and survey data to optimize the course, total workload: 8 hours/week

**Research Assistant** **Aug '16 – Present**

*Jean Walrand, BLISS Lab, Berkeley Computer Science*

- Working with Professor Walrand to optimize surgery room scheduling, exploring possibilities of using online scheduling techniques to adjust for delays, aiming to fit more surgeries into a day
- Creating an Object Oriented Python scheduler that plans surgeries dynamically, using historical surgery data to aid greedy algorithm, adapts to delays by moving patients to other operating rooms

**President** **Jan '16 – Aug '16**

*Hackers@Berkeley*

- Coordinated officer recruitment for fall 2016, conducted interviews, and organized info session
- Organized and presided over officer meetings, restructured club structure to ensure continuation H@B
- Managed all operations for Hacker Fair 2015, coordinated with our sponsor Facebook, recruited presenters from campus

## PROJECTS

**Google Trends predicts the Stock Market** *(github.com/garyxcheng/stock-prediction)*

- Using Python, TensorFlow, Pandas DataFrames, and Google Trends data to predict the movements of the S&P 500. Used autocorrelation plots and log return data to determine predictive value of a searched term. Trained a neural net with 2 hidden layers which achieved a 63% accuracy over a 3-year dataset.

**Text Editor**

- Used JavaFX and Java to create a working a text editor from scratch, used doubly Linked Lists to dynamically store text data and implement word wrap, used stacks and key press/mouse click listeners to implement features such as as undo, redo, saving, and window resizing

**Vuepal** (*facebook.com/vuepal)*

- Developing an iOS app using Swift, Cocoa Touch, Xcode, and Firebase that allows users to share the photos they have taken with one another as they travel together, integrated an offline backup feature so users will have access to all shared photos even in low-bandwidth areas
- Pitched to VCs at the European Innovation Academy accelerator, many expressed interest in our product

**Roommate Messenger Bot** (*github.com/garyxcheng/roommate_messengerbot)*

- Used Facebook webhooks, Node.js, and a Heroku Postgres database to create a Facebook messenger bot that tracks grocery lists for roommates