

DAVID FANG

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY
COMPUTER SCIENCE (GPA: 3.49)

GRADUATION: MAY 2018



WORK EXPERIENCE

STANFORD MEDICINE 08.17 - 09.17
MOBILE DEVELOPMENT CONSULTANT

- Worked closely with Stanford Medicine's Research IT members to identify bugs and design issues in their Discovery Tool mobile app
- Critiqued and recommended direction of the design and architecture of the DT app
- Assessed alternative app builds using React Native, native iOS/Android, or PhoneGap

CYARK 05.17 - 08.17
SOFTWARE ENGINEERING INTERN

- Optimized the hardware for a robotic camera mount, cutting down panorama capturing time by a factor of three
- Developed *GPControl*, an iOS app that interfaces with the camera mount via Bluetooth
- Improved existing firmware by adding new capture methods and precision features

MOSSLABS 05.16 - 03.17
SOFTWARE ENGINEERING INTERN

- Led the design, development, and maintenance for the user interface, data display, workflow and in-app navigation of the *MossSensor* iOS app
- Leveraged asynchronous programming to improve data streaming performance
- Collaborated with the front-end team to create a webapp for interacting with air quality data using D3.js and the Mapbox API



PROJECTS

HANDWRITTEN DIGIT CLASSIFIER, Python

- Implemented algorithms for stochastic gradient descent and perceptron weight updates
- Trained a neural network to classify handwritten digits up to a 94% accuracy

GITLET, Java

- Created a lightweight version of the Git version control system, capable of handling file restoration, branch merges, and file conflicts
- Used a custom linked-list data structure to represent file version and SHA-1 encryption with hash tables to prevent file collisions and optimize runtime performance

HANGMAN, Swift

- Developed a native iOS Hangman app with UC Berkeley buildings as the phrases



LANGUAGES & TOOLS

PROGRAMMING LANGUAGES Python, Java, Swift, C, C++, Javascript, HTML, CSS, SQL

TOOLS Git, Xcode, Expo, Sublime Text, Atom, Adobe Photoshop, Adobe Illustrator