

# Sirjan Kafle

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## EDUCATION

### UNIVERSITY OF CALIFORNIA BERKELEY

#### ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Expected May 2018 | Berkeley, CA

College of Engineering

Dean's Honors

Cum. GPA: 4.0 / 4.0

Major GPA: 4.0 / 4.0

## LINKS

Github:// [SirjanK](#)

LinkedIn:// [sirjankafle](#)

## COURSEWORK

### COMPUTER SCIENCE

CS189 - Machine Learning

CS170 - Efficient Algorithms

CS186 - Database Systems

CS61B - Data Structures

CS70 - Discrete Math and Probability Theory

CS61A - Structure and Interpretation of Computer Programs

### ELECTRICAL ENGINEERING

EE16B - Designing Information Devices and Systems 2

EE16A - Designing Information Devices and Systems 1

### MATHEMATICS

Math53 - Multivariable Calculus

Math54 - Linear Algebra and Differential Equations

## PROGRAMMING

### Languages

Java • Python • JavaScript • Ruby •

SQLite

### Tools/Platforms

Android • Raspberry Pi • Flask • Firebase

• Bash Scripting

### Other

Git • UNIX • LaTeX

## EXPERIENCE

### HERE | HIGHLY AUTONOMOUS DRIVING SOFTWARE INTERN

June 2016 – Current | Berkeley, CA

- Built an Android Surface Application to communicate with various pieces of hardware using the Robot Operating System Java library.
- Facilitated data collection for creating Maps to aid Autonomous Driving efforts.
- Worked under the Agile system with daily standups, frequently showcasing features personally implemented to stakeholders.

### MOBILE DEVELOPERS OF BERKELEY | SENIOR ANDROID DEVELOPER

August 2015 - Current | Berkeley, CA

- Guided new teams in the Mobile Developers club of Berkeley club with Android development, from the design phase to release phase.
- Writing new Android Platform tools for club use and open source use.

### EE16A COURSE STAFF | READER/TUTOR/LAB ASSISTANT

January 2016 - May 2016 | Berkeley, CA

- Aided Students for Labs and HW while also grading assignments.
- Labs such as Image Processing and Locationing with Sound Waves included programming assignments in Python, which required frequent usage of the NumPy Library.

## PROJECTS

### LOCSERV Raspberry Pi Application in Python

- Wrote a Local Flask Server hosted using Ngrok as a Webhook for the Twilio API to send and receive terminal commands via SMS messages.
- Ran the commands synchronously on the Raspberry Pi (although compatible with other Linux machines) and sent output back to user.
- Scripted Python and Bash commands in order to generate a seamless method for setting up the Server and configuring the webhook.

### QLIC ANDROID APPLICATION Social Media Transmission App

- Designed and developed an Android Application dealing with sharing information with surrounding groups.
- Used the Google Nearby API for transferring string payloads and dealt with custom serialization and deserialization.

### YACKRANK Visualize YikYak posts for Colleges around the Country

- Developed a web app using Flask and Python to analyze Yik Yak posts from colleges across the U.S.
- Displayed various information such as top post, most frequent word (after filtering out articles and common words), and results of a natural language library to detect average reading level on a Google Map view.

### CONCENTRAID ANDROID APPLICATION Student Study Aid App

- Engineered an Android Application for breaking up study time based on the Pomodoro Effect.
- Used open source libraries dealing with various specialized Views and adopted a system of Callbacks for managing tasks.