# Sirjan Kafle

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# **EDUCATION**

# UNIVERSITY OF CALIFORNIA BERKELEY

ELECTRICAL ENGINEERING AND COMPUTER SCIENCE Expected May 2018 | Berkeley, CA College of Engineering

# LINKS

Github:// SirjanK LinkedIn:// sirjankafle

Cum. GPA: 3.93 / 4.0

# COURSEWORK

#### **COMPUTER SCIENCE**

CS189 - Machine Learning

CS170 - Efficient Algorithms

CS162 - Operating Systems and Systems Programming

CS176 - Algorithms for Computational Biology

CS186 - Database Systems

CS61C - Machine Structures

CS61B - Data Structures

CS70 - Discrete Math and Probability Theory

CS61A - Structure and Interpretation of Computer Programs

#### **EE & MATHEMATICS**

EECS126 - Probability and Random Processes

EECS127 - Optimization Models and Applications

Math 104 - Real Analysis

Math54 - Linear Algebra & Differential Equations

Math53 - Multivariable Calculus

EE16A/B - Designing Information Devices and Systems 1  $\&\,2$ 

# PROGRAMMING

#### Languages

Java • Python • C • Scala • Pig • JavaScript • SQL

Tools/Platforms

Android • Hadoop • TensorFlow • Flask • Gradle • HTML • CSS • Bash Scripting Other

Git • UNIX • LaTeX

# **EXPERIENCE**

# LINKEDIN | Machine Learning & Relevance Engineer Intern

May 2017 - Aug 2017 | Mountain View, CA

- Modeled and Engineered own project on the Feed Relevance team to realize new efforts put in place by the team.
- Lifted relevant metrics associated with the team through the project and set groundwork for further experiments.
- Worked with TensorFlow to build models and big data platforms like Hadoop to investigate and prepare large datasets.

#### **HERE** | HIGHLY AUTONOMOUS DRIVING SOFTWARE INTERN

June 2016 - Jan 2017 | 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.
- Wrote new Android Platform tools for club use and open source use.

# PERSONAL PROJECTS

#### WIREFLY CalHacks Capital One Prize Winner

- Developed a Web App to simulate optimal peer-to-peer network for international money transfers.
- Modeled a graph network for money transfers all across the world as a Linear Program, on which the Simplex algorithm was run.
- Employed real data on transfer rates and used the Capital One API to create accounts in a variety of countries to create a complicated network.

#### **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.

#### **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.