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: 3.91 / 4.0

LINKS

Github:// **SirjanK**

LinkedIn:// **sirjankafle**

COURSEWORK

COMPUTER SCIENCE

CS189 - Machine Learning

CS170 - Efficient Algorithms

CS61C - Machine Structures

CS61B - Data Structures

CS186 - Database Systems

CS70 - Discrete Math and Probability Theory

CS61A - Structure and Interpretation of Computer Programs

ELECTRICAL ENGINEERING

EE127 - Optimization Models and Applications

EE16B - Designing Information Devices and Systems 2

EE16A - Designing Information Devices and Systems 1

MATHEMATICS

Math104 - Real Analysis

Math53 - Multivariable Calculus

Math54 - Linear Algebra and Differential Equations

PROGRAMMING

Languages

Java • Python • C • JavaScript • Ruby • SQL

Tools/Platforms

Android • Raspberry Pi • Flask • HTML • CSS • Bash Scripting

Other

Git • UNIX • LaTeX

EXPERIENCE

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.

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.