Sukrit Arora

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EDUCATION

University of California, Berkeley, May 2020
Bachelor of Science, Electrical Engineering and Computer Science

Saint Francis High School, Mountain View, CA **(**May 2016**)**
High School Education, Graduated in 3 years

COURSES

Machine Learning*, Optimization Models*, Digital Image Processing*, Digital Signal Processing, Probability and Random Processes, Control Systems, Algorithms, Information Theory, Robotics, Networks, Computer Architecture

SKILLS

Languages: Python, Matlab, C, RISC-V, Java, Swift (iOS), SQL
Other: Micro-controllers, Circuit design/prototyping, CAD, 3D Printing, Laser Cutting

WORK EXPERIENCE

Apple Inc., *Product Security Intern (12 weeks)* 2017
- Created a Command Line Interface (CLI) to perform complex queries on a distributed graph database
- Designed and implemented a server automation project

UC Berkeley Research, *Computational Medical Imaging (12+ weeks)* 2018
- Formulated a volumetric MR image stitching solution to minimize overlap artifacts in Prof. Michael Lustig's Lab

UC Berkeley EECS Department, *Undergraduate Student Instructor* 2018-19
- For EE120 (Signals), EE16B (Intro to EE), & CS61C (Computer Architecture)

CLUBS

Robotics @ Berkeley, *Vice President* 2017-18
Cal Hacks 4.0, *Director* 2017

PROJECTS

Digital Signal Processing (EE123) 2018
- Implemented our own variant of **JPEG image compression** and an **AFSK modem** to transmit images across a room. Placed third in the class.

Probability and Random Processes (EE126) 2018
- Using a Random Walk on a **Markov Chain**, generated new music by training on existing music of different genres.

Algorithms (CS170) 2018
- Wrote a **greedy algorithm** to approximate a solution to an NP-Hard Problem (Graph Partitioning)

Networks (CS168) 2017
- Router implementation - implemented **distance-vector routing**, a distributed routing algorithm
- WAN Optimizer - built a **middlebox application** that optimizes the amount of data transmitted over a wide area network (WAN)

Robotics (EE106A), Segwaybot 2017
- Designed and implemented a **PID controller** for a inverted-pendulum robot that self-balances on two wheels. segwaybot.weebly.com

Robotics at Berkeley Competition, Third Place 2016
- Created a Automated Snack **Delivery Robot** using CAD, Raspberry Pi, OpenCV, Homemade Line Sensors, and a Motor Controller