

Daniel Sun

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Education

University of California - Berkeley

Bachelor of Science in Electrical Engineering and Computer Science

GPA: 3.4

Relevant Coursework

Data Structures and Algorithms · Principles & Techniques of Data Science ·

Computer Architecture · Computer Security · Discrete Math & Probability Theory ·

Designing Information Devices and Systems (Linear Algebra, Controls, Circuits, Signal Processing)

Selected Projects

- Designed a concurrent cached file server in **Go**, to allow parallel disk and cache accesses during web server file requests.
- Collaborated in a team to design a complex maze based on randomly generating pathways and animations through the **Java** StdDraw library.
- Utilized **SQL** and **python** libraries including **Pandas** and **scikit-learn** to design a model that predicts spam and non-spam emails with **95% accuracy** via **one-hot encoding classification** and **cross-validation** between training and testing datasets.
- Designed and built a mini-car with 2 other teammates. Applied methods such as **closed-loop control** via **PWM** inputs to ensure the car heads in a straight path, and utilized **PCA** training to allow the car to recognize specific voice commands, and maneuver accordingly.
- Designed the **control-logic** and datapath for a 2-stage pipelined **RISC-V CPU** supporting instructions from all 6 RISC-V instruction types.

Experience

KiwiBot Robot Deployment/Maintenance Intern

February 2019 - May 2019

Utilized balenaCloud and developed hands-on experience with components including actuators and servo motors while installing and troubleshooting KiwiBots.

Exposed to **start-up culture** and deployed robots across the UC Berkeley campus.

UC Berkeley Stat C100 Course Staff - Teaching Assistant

January 2019 - May 2019

Provided tutoring to students in the introductory Data Science course at UC Berkeley.

Tutored students concepts including regression, classification, and bias-variance tradeoff, and advised students in strategies towards effectively cleaning and analyzing data using Python and SQL.

CalSol (UC Berkeley Solar Vehicle Club)

January 2019 - May 2019

Developed skills in KiCad circuit board design, firmware, and

C++ programming through the design and integration of a variety of electrical components in Tachyon, the CalSol-designed solar vehicle.