Sean Tang

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EDUCATION

UCLA, *BS. Electrical and Computer Engineering* **Expected Graduation: Jun 2026**

- Coursework: Intro to Comp Sci I, Differential Equations
- Extracurricular: IEEE Digital Audio Visualizer, Bruinspace Command & Data Handling, Linux User Group

UC COSMOS, Cluster 8: Internet of Things **Jun 2021 - Aug 2021**

- Implemented a gesture detection system on an MSP432 Micro-controller using C for the final project

Foothill High School, *High School Student* GPA: 4.58/4.00 SAT 1580 **| 2018 - 2022**

TECHNICAL SKILLS

- **Languages:** Python, C/C++, R, JavaScript, HTML/CSS, Java
- **Technologies:** Matplotlib, React.JS, Flask, FastAPI, Shiny, ggplot
- **Tools:** Git, Nano, Visual Studio Code, Android Studio, R Markdown, Jupyter Notebook
- **Operating Systems:** Windows, Linux (Ubuntu)
- **Foreign Languages:** Mandarin (native speaker), Japanese (beginner fluency)

RESEARCH EXPERIENCE

Yang Research Laboratory, UC Davis, *Research Volunteer* **Aug 2021 – Aug 2022**

- Responsible for the benchmarking and comparison of Calcium imaging algorithms for a novel compressed-sensing-based deep learning approach to neuron activities extraction from Calcium imaging data.

PNNL Joint Global Change Research Institute, *Paid Intern* **Nov 2020 – Aug 2021**

- Responsible for the development, maintenance, testing, and documentation of the Argus data visualization platform for JGCRI's flagship human-earth system model, GCAM.

EXPERIENCE

Nize Systems Inc, *Android/API Developer* **Dec 2019 – May 2020**

- Implemented Android front end, OAuth2 security for API, and broadcast service for the Nize Presence API.
- Implemented an inventory tracking backend module for the Nize Bay Area Covid Tracker.

FHS Vex Robotics Club, *Code Lead/Treasurer* **Aug 2021 – May 2022**

- Trained and lead a new software team after the COVID-19 hiatus
- Managed and processed over $1000 worth of competition entries funds

PROJECT

Darkforrest **March 2022 – May 2022**

- A multi-body physics simulator inspired by the Chinese Science Fiction Novel "Dark Forest" by Liu Qi Xin
- Tech Stack: Pygame / ggplot

FORGUS **Jan 2021 – Feb 2021**

- Designed and implemented an IoT application that provides real-time anonymized information on foot traffic. Together with a statistical model, the application also provides a prediction of foot traffic.
- Tech Stack: R-shiny / FastAPI / MongoDB
- Hardware Stack: Raspberry Pi / GSM Module / ADC / IR Sensors

OOF_OS **May 2021 – Aug 2021**

- Wrote an X86_64 Bootloader following the tutorial "OPERATING SYSTEMS: FROM 0 TO 1"

Trading Simulator **March 2019– May 2019**

- A trading simulator was written for the final portfolio portion of AP Computer Science Principles. Utilized Tkinter for GUI.

AWARDS

- USACO Silver, 2/2020 Competition
- Alameda County Science Fair, Mechanical Engineering and Instruments, category 2nd Place