Aaron Gee

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Skills

Computer Languages: Python, C++, Java, C, Assembly, JavaScript, HTML, CSS, Verilog

Tools/Frameworks/ Eclipse, VIM, PyCharm, IntelliJ, Visual Studio, Notepad++, Vivado, GitHub,

Libraries: React, OpenCV, Vite, TailwindCSS **Microprocessor Board:** TM4C123 Tiva Launchpad, Raspberry Pi

Soft Skills: Communication, Teamwork, Creativity, Curiosity, Patience

Project Experience

Fire Detection Drone Oct 2023 - Mar 2024

Prototyped low-cost semi-autonomous aerial drone with fire detection capabilities

• Developed the drone's fire detecting program using **Python** and **OpenCV**

- Combined **traditional image processing techniques** and **thermal imagery** to accurately identify the presence of fires with low latency and reduced power consumption
- Communicated software-oriented ideas and delegated equal project responsibilities with teammates for efficient prototype development

Ride Organizing Application

Apr - Aug 2024

- Created a web-based ride organizing application
- Frontend used HTML, CSS, Javascript, & React
- Backend used **NodeJS**, with **Auth0** for user authentication, and **MongoDB** to save events, rides, drivers, and passengers

Raspberry Pi HVAC Simulator

Jan - Mar 2024

- Designed a "HVAC simulator" using a Raspberry Pi 5 and various external sensors
- Collected temperature, humidity, and motion data about the immediate environment
- Processed sensor inputs to display relevant information on LEDs and an LCD

Personal Portfolio Website

Jan - Mar 2025

- Developed a frontend website using **React** and **Tailwind**
- Page routing using **React Router** and a real-time changelog using **GitHub Apps**.

Education

Computer Science and Engineering, B.S. (Oct 2020 ~ June 2024) | *University of California, Irvine*

Relevant Courses

| Programming | Embedded Software, Data Structures, Algorithm Analysis & Design, Systems Engineering, Internet Applications Engineering, Computer Networks, Principles of Operating Systems |
|-------------------------|--|
| Math | Multivariable Calculus, Linear Algebra, Differential Equations, Boolean Logic, Discrete |
| | Mathematics |
| Computer Engineering | Digital Systems & Logic, Organization of Digital Computers, Network Analysis |
| Others | Professional Communication |