

Chu Yi Aaron Herr

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EDUCATION

San Francisco State University

San Francisco, CA

Bachelor of Science, Computer Science

May 2025

- GPA 2.9

Coursework: Data Structures and Algorithms, Computer Architecture, Discrete Mathematics, Android Development, Game Engine Architecture, Operating Systems

WORK EXPERIENCE

University of California, Berkeley

Berkeley, CA

Undergraduate Staff Software Engineer

Fall 2022 – Spring 2024

- Users were facing was ineffective ability at monitoring incoming data, doing data analysis.
- Implemented solutions to solve these issues users were facing.
- I developed using Qt's QProcess to run in worker threads for streaming real-time data to users via docking windows.
- Users were able to submit jobs and receive feedback through these docking window, improving data analysis capabilities.

SKILLS

Technologies: Git, VSCode, Jira, Serial Communication, GDB (Gnu Debugger), Valgrind/Calgrind, Agile Development, JSON, YAML file formats, Software Design, Digital Logic, Bitwise Operations

Soft Skills: Analytical Thinker, Good Verbal and Written Communication, Excellent Analytical Skills

Languages: C/C++, Java, Python, Linux, Unix, Scripting (Bash, Csh, Tcsh), Makefiles, CMake, x86 assembly

CLUBS/PROJECTS

SJSU Robotics

San Jose, CA

Intelligence Systems Member

Jan 2023 – Present

Working in the autonomy with firmware. This includes troubleshooting the GPS, LiDar, and Compass to for giving related information. Helping give data for the rover to do autonomous navigation. Problems that I solved was reading output as to getting a lock to the GPS. Collaborating with team members in debugging and calibrating the firmware for Compass.

Game Engine

San Jose, CA

Personal Project

Oct 2023 – Present

I developed a game engine using CMake and C++ that utilized OpenGL for rendering. The engine included features such as a 2D/3D renderer, UI editor, and serialization/deserialization capabilities, enabling the creation, loading, and saving of scenes through the editor rather than through programmatically. Which also includes using JSON for formatting data, with the debugging profiling tool. Moreover, I leveraged YAML for serialization/deserialization tasks, enabling smooth conversion between object data and YAML's human readability form.

Libhal Contributor

San Jose, CA

Open-Source Contributor

Present

Worked in developing porting different drivers to libhal. Porting drivers such as Ipc40, stm32, and i2c, DAC, ADC, CAN, etc. Where contributing to libhal, I continued in adding more support to other chips. Continued in porting these drivers, so libhal can support different kinds of arm chips.