

Chu Yi Aaron Herr

San Jose, CA 95112 | (599) 908-8784 | heraaaronhotmail@yahoo.com | <https://www.linkedin.com/in/aaron-her>  
<https://github.com/SpinnerX>

**OBJECTIVE:** Software Engineer in Embedded Systems who is seeking experiences and opportunities in real-time Embedded Systems development.

## EDUCATION

**B.S., Computer Science** May 2025

San Francisco State University, San Francisco, CA

**A.S., Computer Science** May 2023

Clovis Community College, Clovis, CA, GPA: 3.13

## Software Technical Skills

- C, C++, Java, Python, CMake, Software Design Patterns, Agile, Scrum methodologies, Multi-threading and Concurrency development, compile-time optimization, computer architecture, Operating Systems, GDB, automating scripting, Familiar with Unix and Linux, and bash, ffmpeg (C framework), OpenGL, GLFW, Project Management, x86, and ARM32 assembly, emulation development, Networking, Boost (C++ Framework).

## Hardware Skills

- Soldering, 3D Printing using Ender, CAD Software OnShape

## WORK EXPERIENCE

**University of California Berkeley**, Berkeley, CA September 2022 - Present

- Worked in the Advance bio-imaging center developing the LLSM applications using modern C++ using the QT framework.
- Role involved working on problem solving and handling errors, such as race conditions with sub processes in a multi-threaded environment.
- Part of my role involved myself in scheduling meetings which allowed me to showcase my ability to work independent.
- Effectively communicating with mentor at meetings about release dates and deadlines, showcasing my ability to manage my time.

## PROJECT EXPERIENCE

**6502 CPU Emulator | Personal Project | GitHub** Spring 2023 - present

- Reverse engineering the 6502 8-bit processor.
- Implementing the fetch, decode, and execute cycle for the 6502.
- Analyzing the 6502-microprocessor datasheet
- Representing the 6502-chip using a higher-level language, C++.
- Project offered practical applications in looking to emulating an 8-bit processor chip.

**Libhal Framework | Opensource Contributor | GitHub** Summer 2023 - present

- Contributing to mentor's Libhal robotics framework in implementing a serialize mirror that uses the UART protocol.
- Implementing a driver serial port taking in N number of serial ports, that writes downstream of serial ports.

**Logs Git Bash Script | Summer Project | GitHub** Summer 2023

- Git bash script for students to fetch previous versions of assignments in the case students wipe their code for the assignment.
- Utilizing git script not just commit logs to a branchless repo, but for also doing cheat detection by pulling those logs.
- Using these logs to search for anomalies when students compile their code, the script flags students based on the threshold in the script.

## CLUB and ACTIVITIES

**Robotics Club | GitHub** Fall 2023 - Present

- Currently in the intelligence systems team for robotics.
- Building test cases checking for race conditions in the codebase, in concurrent environment.