Chu Yi Aaron Herr

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<https://github.com/SpinnerX>

**OBJECTIVE:** Seeking internship in Embedded systems, as Embedded Software Engineer

**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

**TECHNICAL SKILLS**

**Programing**: C, C++, Java

**Scripting**: Python, Unix and Linux Scripting

**Skills**: Software Design Patterns, Agile, Scrum methodologies,

Concurrency, multi-threading, parallel processing development, compile-time optimization, computer architecture, Operating Systems, CAD,

**OS Familiarity**: Unix, Linux, Windows

**WORK EXPERIENCE**

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

* Worked for the Advance bio-imaging center at UC Berkeley to develop applications using modern C++ along with 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**  Spring 2023 - present

* Implementing an 8-bit CPU the 6502, using modern C++ along with approaches of operating systems.
* Designing logic flow and researching how emulate CPU emulation at a lower level, with an optimized approach considered.
* Emulating the 6502 CPU, in a low-level environment displaying my understanding of how a CPU operates, control flow, how different CPU handles memory management operations, including how assembly are involved.

**Logs.sh Bash Script** | Clovis Community College Summer 2023

Over the summer collaborated with my professor in developing a logger script, that uses Unix and git scripting commands. There has been a history of students losing progress on their programming assignments.

* Script to autosave student’s progress on their assignments if mistakes were made, can be reverted to previous version of the assignments for student’s.
* Handles searching for anomalies in student’s assignments, if there are any activity of copy and pasting.

**Assembly Compiler**  Spring 2022

* Using C++ and ARM32 assembly to create a compiler translating into assembly, then assemble into an executable.
* C++ used as the tokenizer, and to interpret commands given to C++ that will be interpreted and handle by ARM32 in basic arithmetic and basic IO.

Draft #2

* Using C++ to implement a basic compiler and using ARM32 in implementing the logic.
* Implementing C++’s stringstream’s as the tokenizer parsing syntax commands.
* ARM32 assembly to implement basic operations such as I/O, basic arithmetic, and basic conditional operations.