Evan Asakawa

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Summary

Embedded C++/Linux Developer with a foundation in embedded systems, multithreaded programming, and programming languages, seeking to deliver high-quality software solutions.

Education

B.S. in Computer Science, Minor in Statistical Science
University of California, Santa Barbara • Expected June 2025 • GPA: 3.81

Relevant Coursework

Operating Systems • Graduate Operating Systems • Databases • Advanced Applications Programming • Computer Security • Programming Languages • Computer Networking

Technical Skills

- Programming: C, C++, Python, Rust
- Practices: Agile, CI/CD, Git, Unit/Integration/End to end testing

Projects

Embedded File System

- Designed and implemented a FUSE-based SysV file system in C++ for Ubuntu 20.04, emphasizing efficiency, robust error handling, performance, and scalability.
- Optimized disk I/O through caching mechanisms, enhancing file access speed and overall system performance.

Linux-like Operating System

- Collaborated on developing an asynchronous, multithreaded OS in C, integrating process management and inter-process communication.
- Developed low-level synchronization primitives and utilized GDB for debugging, significantly reducing concurrency issues and increasing reliability.

C++ Compiler

- Created a functional compiler for a simplified C/Rust-like language using C++17, leveraging modern memory management and comprehensive unit testing.
- Designed lexing, parsing, and code generation modules that translated source code into optimized x86-64 assembly instructions.

Course Web App

- Contributed as part of a 6-member collaborative Agile team to enhance a legacy UCSB course search application.
- Developed React components and a Spring Boot backend, integrated CI/CD pipelines, Postgres and MongoDB databases, and implemented robust testing practices with Git version control.
- Built RESTful API endpoints to aggregate and present historical course data, improving user search experience.