

JARED MOULTON

Logan, Utah

jaredmoulton3@gmail.com · github.com/jrmoulton

EDUCATION

Utah State University

Logan, Utah

Bachelor of Science in Computer Engineering

May 2025

- **Courses:** High Performance Computing, Embedded Real Time Operating Systems, Microcontrollers, Compiler Architecture, Reconfigurable Computing, Computer Systems Programming and Architecture, Technical Writing, Computer Networks

WORK EXPERIENCE

Baker Hughes

Remote / Minden, Nevada

Firmware Engineer

May 2022 – Aug 2024

- Led a team of 3 engineers to successfully build an embedded, high performance, internal testing tool in 6 months
- Designed, developed, and deployed a cross-platform GUI, enabling low-latency configuration of an embedded system
- Developed drivers for I2C, UART, and an async STM32 I2C slave implementation
- Developed a USB communication protocol to maximize wire efficiency and memory optimization
- Contributed to hardware design enhancements through targeted, constructive feedback
- Significantly increased the performance of dual-channel direct digital synthesizer firmware, achieving a speed improvement of over 100x

Utah State University

Logan, Utah

Microcontrollers Lab TA

Aug 2024 – Dec 2024

PROJECTS

Floem: Open Source, High Performance, Cross Platform GUI Library (Rust)

- Organize and push development forward as a core maintainer
- Lead the transition to a new, high performance 2D renderer
- Built and integrated a high performance, flexible keyframe animation engine, including spring animations
- Contribute regularly, focusing on API ergonomics and developer experience
- Perform code review for external contributions

Compiler (Rust)

- Designed and built an interpreter and compiler for a custom programming language
- Developed a custom virtual machine
- Implemented robust error handling and clear user feedback
- Utilized test driven development to ensure correctness

SKILLS, LANGUAGES, INTERESTS

- **Programming Languages:** Rust, C++, Python, C, Java
- **Hardware Description Languages:** Verilog, VHDL
- **Equipment:** 3D Printer, Oscilloscope, Logic Analyzer, STM32, FPGA
- **Other:** CAD (Inventor)
- **Languages:** English (Native speaker), Spanish (Fluent)
- **Interests:** Programming, Mountain Biking, Skiing, Family