

# JARED MOULTON

Logan, Utah

jaredmoulton3@gmail.com · 435-828-0544 · github.com/jrmoulton

## EDUCATION

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### Utah State University

*Bachelor of Science in Computer Engineering*

**Logan, Utah**

May 2025

- **Courses:** Compiler Architecture, Embedded Real Time Operating Systems, Reconfigurable Computing, Computer Systems Programming and Architecture, Microcontrollers, Technical Writing, Principles of Cyber Physical Systems, Computer Networks

## WORK EXPERIENCE

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### Baker Hughes

*Firmware Engineer*

**Remote / Minden, Nevada**

May 2022 – Aug 2024

- Led a team of 3 engineers to successfully build an embedded, high performance, internal testing tool in 6 months
- Developed a USB communication protocol that maximizes wire efficiency and memory optimization
- Designed and deployed a cross-platform graphical user interface, enhancing user interaction and system accessibility
- 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

*Microcontrollers Lab TA*

**Logan, Utah**

Aug 2024 – Dec 2024

### Fox Pest Control

*Sales Associate*

**Albany, New York**

May 2021 – Aug 2021

- Gained experience in sales processes and techniques by consistently closing sales
- Enhanced negotiation skills through direct customer interactions, generating over \$50,000 in revenue

## PROJECTS

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### Compiler

- 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

### Open Source, High Performance, Cross Platform UI Framework

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

### Hardware Desk Controller - Reverse Engineered

- Decoded half-duplex UART communication using a logic analyzer
- Developing a Bluetooth-enabled remote control using ESP32C3 for enhanced functionality

## SKILLS, LANGUAGES, INTERESTS

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