QUINN YOCKEY

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EDUCATION

Honors BS in Electrical Computer Engineering, Minor in Computer Science　　　Expected June 2027
Oregon State University　　　*Corvallis, OR*

- 3.97 GPA
- Presidential Scholar
- Honor Roll Fall 2023 – Present

PROFESSIONAL EXPERIENCE

Embedded Software Engineer Intern　　　Jun. – Sep. 2025
Wind River　　　*San Diego, CA*

- Developed python tool to collect data on internal project status using SOAP API from tracking database.
- Automated progress data collection into spreadsheets, saving hours per week for project managers of multi-million-dollar commissions.
- Reversed-engineered existing internal API library to extend functionality and apply bug fixes.

Undergraduate Learning Assistant (ECE 272: Digital Logic Design)　　　Sep. 2024 – Jun. 2025, Sep. 2025 - Present
Oregon State University　　　*Corvallis, OR*

- Researched and implemented automatic validation into course labs using SystemVerilog testbenches.
- Created and improved instructional guides to deliver technical content in an understandable manner.
- Co-instructed lab sessions, guiding design implementation, validation, and debugging.
- Presented original arithmetic logic unit (ALU) demo in lecture to class of 94.

Embedded Software & Electrical Technician Intern　　　Jul. - Sep. 2024
Lime Rock, LLC　　　*Medford, OR*

- Designed serial communication interface in embedded C for STM32 microcontroller, enabling seamless and abstract integration with measurement sensor.
- Utilized oscilloscope for extensive debugging of hardware and software.
- Applied quaternion mathematics to implement precise stabilization feedback, mitigating gimbal lock risk .
- Increased manufacturing efficiency of military-spec wiring harnesses & soldered circuit board assemblies.
- Collaborated with engineers to write and refine documentation throughout prototype development.

PROJECTS

Bicycle Speedometer　　　Oct. 2024 – Jan. 2025

- Designed and implemented bike speedometer for ATmega32U4 microcontroller.
- Iterated over software architecture using embedded C, ultimately reaching interrupt-driven control flow.
- Optimized design for low power consumption to maximize device battery life.
- Developed error-resistant drivers for serial transmission and OLED display.

Breadboard Computer　　　Feb. – Apr. 2024

- Constructed breadboard computer built around 6502 8-bit microprocessor.
- Developed EEPROM programmer in C using Raspberry Pi GPIO meeting precise timing constraints.
- Created Morse Code keyer in 6502 assembly leveraging modular design.

SKILLS

Languages:　C, SystemVerilog, Assembly (AVR & 6502), C++, Python, Java.
Tools:　Linux, Git, Bash, Make, GDB, Valgrind, Quartus Prime, ModelSim, Vim, STM32 IDE.
Concepts:　Embedded systems, Microcontrollers, Serial communication, FPGA design, Debugging.
Soft Skills:　Communication, Motivation, Detail-oriented analytical thinking.