Oliver Hansen

Newberg, Oregon • oliver.hansennial3@gmail.com • (503) 430-9961 • linkedin.com/in/ohansen22

EDUCATION

George Fox University, Newberg, Oregon 2022 – 2026

Bachelor of Science, Engineering
Concentration in Computer Engineering
Relevant coursework: C Programming, Microprocessor Architecture, Digital Logic Design, Signals and Networks, Electrical Power Systems, Data Structures, Algorithms, Embedded Systems Design

PROFESSIONAL EXPERIENCE

TZ Medical, Tigard, Oregon May 2025 – Present
Embedded Systems Intern

- Developed and maintained C firmware for wireless 3-channel ECG monitors.
- Key Skills: Real-Time Operating Systems, JTAG Debugging, Testing Procedures

George Fox University, Newberg, Oregon Aug 2023 – Present
Teacher's Aide and Physics Tutor

- Assist with grading, curriculum development, and student tutoring.

uBreakIfix by Asurion, Tigard, Oregon May 2024 – Jan 2025
Computer Repair Technician

- Certified Technician on Samsung, Google, and Dell devices.
- Diagnosed and repaired hardware and software issues for customer devices.

PROJECTS & EXTRACURRICULARS

Haptic Smart Dial Jan 2025
- Designed and prototyped a haptic feedback smart dial featuring a high-resolution magnetic rotary sensor, ESP32-based control system, and programmable vibration motor for tactile interaction. Integrated wired and wireless HID functionality with customizable modes for scrolling, volume control, and standalone operation.

Cost Effective Spectroscopy Brain Scanner Aug 2024
- Collaborated with a small, cross-disciplinary team to design and implement a light-based brain scanner using functional Near-Infrared Spectroscopy (fNIRS). Focused on firmware development, signal validation, and PCB assembly.

Breakout in C Nov 2024
- Recreated the classic Breakout game on an ARM-based Atmel SAM D21G microcontroller using a custom Arduino shield PCB. Implemented interrupt-driven processing, state machines, and SPI/I2C communication.

Oregon Site Champion (Division 2), International Collegiate Programming Contest February 2024

SKILLS

Programming languages: C, Go, Python, Assembly, Verilog

Computer software/ frameworks: VS Code, Git, Jira, Altium Designer, JetBrains Studio Suite

Hardware: PCB Design, Hardware Debugging (Digital Logic Analyzers, Oscilloscopes), Rapid Prototyping