

Owen Christensen

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Shift lead at **Amazon LEO** and a self-taught embedded builder, working toward a B.S. in **Electrical & Computer Engineering** at the University of Washington (junior transfer, class of 2028). I build personal hardware projects on the side and am looking for **embedded/hardware internships for summer 2027**.

Skills

Hardware & Diagnostics	Microcontrollers (ESP32, ATmega) · PCB Schematic Reading & Design (KiCad) · Soldering, incl. hotplate reflow & SMD rework · Component-level Troubleshooting · Logic Analyzers · Oscilloscopes (familiarity)
Software & Systems	C · Embedded Firmware (ESP-IDF) · Linux command-line · Python (familiarity)
Professional	Detail-Oriented · Technical Documentation · Quality Assurance · Teamwork · Communication

Projects

Gravity Cube – 3D LED Physics Simulation

github.com/Oachristensen/Gravity-Cube

- Wrote a register-level **ICM-20948 IMU driver over SPI** in C on ESP-IDF, working directly from the datasheet
- Built a coordinate-mapping layer projecting a 3D voxel falling-sand simulation onto 384 series-wired WS2812B LEDs across six panels of differing orientation
- Diagnosed a power brownout (regulator dropout under LED current draw) and resolved it by isolating the LED and MCU power rails
- Designed internal mounting in Fusion 360 with 3D-printed rapid prototyping; hand-assembled and reworked all electronics

ATmega328PB Dev Board (PCB Business Card)

- Designed a custom ATmega328PB dev board in a business-card form factor – full schematic and layout from scratch in **KiCad** (USB-C, CH340C USB-UART, crystal, DTR auto-reset)
- Fabricated at JLCPCB, sourced from LCSC, and hand-assembled via hotplate reflow

Experience

Amazon LEO (formerly Project Kuiper) – Redmond, WA

Oct 2025 – Present

Satellite Production Technician → Production Planner → Shift Lead

- Promoted from technician to production planner to shift lead within 8 months
- Manage a team of 8 technicians, consistently hitting targets and exceeding goals
- Work with management and engineering to plan testing and coordinate changes down the production line

Starlink – Redmond, WA

Feb 2024 – Sep 2024

Satellite Production Technician

- Moved fluidly between departments in a fast-changing environment, adapting quickly to new systems and tooling
- Worked to a near-zero defect rate in a detail-oriented setting, consistently meeting deadlines
- Identified common tooling errors and recurring defects, working with test technicians to trace and address root causes

Quick Ship Brands – Woodinville, WA

Jan 2023 – Feb 2024

Consumer Electronics Repair Technician

- Self-taught new repair skills as devices released, handling small, delicate hardware and repairing 20+ devices a day

Education

University of Washington – B.S. Electrical & Computer Engineering (junior transfer)

Fall 2026 – 2028 (exp.)

North Seattle College

Sep 2024 – Jun 2026

Calculus I-III · Engineering Physics I-III · Ordinary Differential Equations

South Seattle College – Associate of Arts