Astrid Delestine

+1 (206)-851-5116 | Astrid@delestine.com | Linked In | Git Profile | Custom Webpage

Summary

Results-driven junior engineer specialized in research and development, skilled in firmware and software solutions. Demonstrated success in optimizing energy efficiency of smart home systems and streamlining mathematical processing for faster computations. Eager to leverage technical expertise to innovate and improve product development in dynamic environments.

Education

Oregon State University **Sep 2020 - Mar 2025**

Bachelor of Science, Electrical and Computer Engineering (GPA: 3.38) *Corvallis, OR*

- **Coursework:** Microcontroller System Design, Computer Org & Assembly Lang, VLSI System Design, Network Security, Electro-mechanical Energy Conversion, Transmission Lines, Operating Systems

Experience

Leviton **Jun 2024 - Dec 2024**

MECOP R&D Firmware Engineer *Tualatin, OR*

- Researched two distinct types of Micro-electromechanical system microphones, enhancing understanding of their applications in consumer lightswitches
- Implemented pulse density modulation decoding at a firmware level to accurately detect human occupancy, leading to a 30% increase in energy efficiency for smart home systems.
- Improved existing pulse density modulation decoding codebase, decreasing code use by 10,000+ lines
- Developed an object-oriented project path, incorporating light switches, light-emitting diodes, and microphones, resulting in a reduced-cost Bluetooth light control unit.
- Collaborated using the Atlassian (Jira) suite of tools, enhancing team communication and project management efficiency

Datalogic **Apr 2023 - Sep 2023**

MECOP R&D Software Engineer *Eugene, OR*

- Enhanced knowledge of version control systems, C, C++, and C preprocessor intrinsics to effectively apply platform-tailored assembly instructions, contributing to improved application performance
- Utilized system-specific assembly instructions to parallelize mathematical operations decreasing processing time by 15%
- Developed a code testing infrastructure using the Catch2 framework to systematically evaluate all possible values of a given operation, leading to more reliable code and fewer runtime errors
- Worked with team members across multiple time zones to enhance project coordination and ensure timely delivery, improving team communication and project outcomes

Leadership & Activities

Scouting America: Troop 186 Seattle, WA | *Assistant Senior Patrol Leader* **Jul 2019 - Dec 2019**

- Assisted in leading Troop 186 in the second half of the year
- Achieved the rank of Eagle Scout

FIRST Robotics: Team 4682 Seattle, WA | *Team Captain, Programming & Electrical Lead* **Jan 2017 - Mar 2020**

- Lead a team of 14-19 high school students to design a 5000$ robot over 10 weeks
- Developed skills in Fusion 360, Rhino CAD, Eclipse, Visual Studio Code, basic panel wiring, Lab-view, and Java to design, program, and wire the robot

Skills & Interests

- **Projects:** Remote Desktop Access Terminal, Fish Tank Monitor
- **Laboratory:** Advanced Soldering, Oscilloscope, Power Load calculation
- **Technical:** Advanced C, C++, Java, Fusion360, KiCad, Python, Meson, Linux, Windows, Mac OS, Intermediate Verilog, VHDL, Adobe Creative Suite, HTML, CSS, SQL
- **Interests:** Laptop Design, Open source, 3d Printing, Volleyball

Certifications

- **NCEES FE Exam:** Certified Engineering Intern in the state of Oregon