DREW ORTEGA

14235 SW Barrows Rd. Beaverton, OR 97007 ⋄ (503)329-3522
DrewSOrtega@pm.me ⋄ github.com/DrewSOrtega

TECHNICAL STRENGTHS

Programming Languages C++17, Python, C#, JavaScript, Bash, Tcl, Rust, proto3
Software & Tools GNU/Linux, Perforce, Git, vi, Postman, Zeek, VS Code, abseil, gMock

WORK EXPERIENCE

Google Remote from Corvallis, OR
Software Engineering Intern - Envoy Proxy *June 2020 - Sept 2020*

- Improved Envoy Proxy's Open-Source health checking and health discovery services by improving C++17 data structure usage and fixing critical crashing issues through multiple public Pull Requests on GitHub.
- Implemented backwards-compatible proto3 API changes to add support for HTTP/2 and TLS while following strict versioning practices to ensure project users do not need to adjust their systems to upgrade to newer versions.
- Wrote unit tests and integration tests with gMock to check validity of gRPC network message content over a multi-threaded timer-based environment to verify system stability.

Office of Information Security, Oregon State University Corvallis, OR
Security Analyst *Feb 2020 - June 2020*

- Monitored OSU network traffic for indicators of compromise (IoCs) with Zeek and Splunk to prevent and respond to security incidents, such as checking download hashes for malware and tracking suspicious internal network activity over a full-Tunnel VPN.
- Responded to reports of compromised devices and accounts by blocking network traffic, locking accounts, and scanning devices for open ports.

Mentor Graphics Wilsonville, OR
Software Engineering Intern - High-Level Synthesis *June 2019 - Sept 2019*

- Authored algorithms in C++ and Tcl to assist in translating SystemC in to RTL Verilog and VHDL, in order to make using SystemC easier for users of the Catapult High-Level Synthesis compiler.
- Worked closely with team members in France, India, the US, and other countries on a large code base to ensure customers received consistent results between software updates.

Center for Applied Systems & Software (CASS) Corvallis, OR
Student Developer *Oct 2018 - Feb 2020*

- Implemented software designs into production applications requested and used by outside organizations such as the Linux Foundation, USDA, and the Oregon Department of Transportation.
- Maintained a .NET Core/React Full-Stack web application by fulfilling GitHub Issues and maintaining Kanban project boards, managed through Git version control.

Aspen Capital Beaverton, OR
Software Engineering Intern *June 2018 - Sept 2018*

- Used JavaScript with Node.js and Vue to implement a production CLI tool and RESTful full-stack web app to automate TIN name verification to improve quarterly reporting efficiency.
- Created unit and integration tests with Mocha to ensure functionality worked as expected before deploying with Jenkins continuous integration onto a production Linux server.

Experis US for Microsoft Portland, OR
Test Associate II *June 2017 - Sept 2017*

- Tracked and logged over 500 QA issues through TFS and Visual Studio for bug reporting and developer triage.

EDUCATION

Oregon State University GPA: 3.96
B.S. Computer Science *Sept 2017 - June 2021*
Relevant Coursework: Algorithms, Data Structures, Discrete Math, Linear Algebra, Software Engineering, Programming Language Fundamentals, Cryptography, Operating Systems 1, Operating Systems 2, Theory of Computation, Graphics, Web Development.

PROJECTS

- **lineage**: Lightweight TCP Socket wrapper library, written in Rust. Accepts hardware-limited number of connections to be used for both clients and servers. Operates multi-threaded over custom-implemented pool and communicates over generalized packets serialized between devices.
- **osborne**: Application which uses provided user coordinates and elevation, along with the USGS national elevation raster data, to help firefters find the location of smoke or fire from a vantage point.
- **pushpipe**: Small package on npmjs.org which makes receiving data on streams after using pipes easier.
- **FPGA Floyd-Steinberg Dithering**: A parallelized and pipelined implementation of Floyd-Steinberg Dithering that intercepts HDMI input and applies the filter to direct HDMI output in 60 frames per second on an FPGA using High-Level Synthesis and Xilinx ZCU102.

AWARDS, INTERESTS, & INVOLVEMENT

- **OSU Linux Users Group, President**: Planned weekly meetings with guest speakers and learning activities.
- **Eagle Scout**: Built three large IT computer workbenches for the Tigard High School IT Department.
- **Sousa Award**: Awarded yearly to a single distinguished leader in a music program.
- **Waldo-Cummings Award**: Awarded yearly to 4.00 GPA Students at Oregon State.
- Avid Arch Linux user, audiophile, classical pianist, and jazz saxophone player.