# Devin Pohl

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I am a final semester undergraduate student studying Computer Engineering at Colorado State University. I have a passion for programming and electronics, with interests in low-level, embedded, and kernel-space programming.

### **Education**

Colorado State University

Fort Collins, CO

Bachelor of Science in Computer Engineering, Minor in Mathematics, Minor in Computer Science summa cum laude

Graduating May 2022 Anticipated 4.0 GPA

Relevant Coursework: Compilers, Fault Tolerant Computing, Computer Micro-Architecture, Software Engineering, Operating Systems, VLSI, Computer Networking, Analog and Digital Circuit design, Signals and Systems

#### Technical Skills

O Programming Languages:

- Procedural ARM Assembly, Bash, C, Fish, Matlab, MIPS, Spice, Verilog

- Object-Oriented Arduino INO, C++, Java, JavaScript, Python, Rust

 Functional Lisp, Elisp, LATEX, Scala

Libraries and Frameworks:

- Graphical Native X11, XCB, Cairo, Pango, Unicode CLDR, GTK, Qt, Android API, ncurses

- Computational GMP, OpenMP, OpenCL, OpenGL, GLSL, Rink.rs, Sage - Web Based Rocket.rs, Zola, ReactJS, VueJS, NodeJS, ExpressJS, jQuery

### **Work Experience**

Platform Engineering Intern

Fort Collins, CO

Hewlett Packard Enterprise - NonStop Low-Level Team May 2021 - Aug 2021

- Designed a performance modeling library to mock enterprise-grade RDMA behavior without dedicated hardware

- Proved feasibility of an implementation method that would drastically reduce startup cost for new customers
- Worked in C with InfiniBand and NSK to invisibly apply kernel-mode modifications to existing benchmarks and applications

Software Development Intern

Fort Collins, CO

Hewlett Packard Enterprise - NonStop Manageability Team

May 2020 - Aug 2020

- Improved and optimized OSM, the main application for maintaining, updating, and upgrading NonStop servers
- Migrated critical security procedures from CLI to GUI, cutting down on time overhead and human error for end-users
- Worked in Java, using Swing, AWT, RMI, and several internal HPE libraries

**Programming Instructor** 

Fort Collins, CO

Tech Corps

Jul 2019 - Aug 2019

- Lead multiple week long summer camps aimed at Middle and Elementary School students
- Prepared and delivered material covering programming fundamentals, theory, and applications
- Delivered lessons and projects in Scratch, MIT App Inventor, and Python

## **Notable Projects**

Senior Design Project

Shizcow/hotpatch

**♦** Shizcow/dmenu-rs

**Ongoing Development** 

Colorado State University - ECE Department

Aug 2021 - May 2022

- Designing and implementing an embedded systems framework for enterprise-grade quadrupedal robotics applications
- Extending existing open-source designs to provide feature-parity with existing industry solutions at a fraction of the cost
- Collaborating with ECE Outreach to excite middle and high school students about Electrical and Computer Engineering

hotpatch

v0.3.0 Released Feb 2021

- Rust crate for cross-platform hot-reloading of functions and methods at runtime as easily as possible

8 docs.rs/hotpatch

- Guarantees memory safety, thread safety, deadlock protection, type correctness, and name-space parity

#### dmenu-rs

v5.5.1 Released Dec 2020

**★** arch::aur::dmenu-rs

- A program launcher, unit-aware calculator, spellchecker, search engine dispatcher, and general purpose menu for Linux
- A port of the popular GNU utility dmenu to Rust, offering increased speed, lower memory usage, and extensive plugin support
- Maintains perfect backwards compatibility, garnering thousands of users and 100+ stars on GitHub