# Devin Pohl

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 Shizcow • Ⓐ Shizcow • 🌐 www.pohldev.in

I am a final semester undergraduate student studying Computer Engineering at Colorado State University.
I will return for a graduate degree in compilers and high performance computing, with additional interests in firmware and kernels.

## Education

**Colorado State University** — **Fort Collins, CO**
*Bachelor of Science in Computer Engineering, Minor in Mathematics, Minor in Computer Science* — *Graduating May 2022*
- **Academic Distinctions:**
  · *CEC Silver Medal Candidate*: Recognized as the number one computer engineering undergraduate in all of Colorado
  · *summa cum laude*, 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

- **Programming Languages:**
  - Procedural — ARM Assembly, Bash, **C**, Fish, LLVM, 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 — Boolector, 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

## Notable Projects

**Practical Program Equivalence Project** — **Completed May 2022**
*Colorado State University – Under Dr. Yashwant Malaiya* — *Department of Computer Science*
- Wrote a tool to prove program equivalence across software versions via LLVM symbolic execution
- Achieved non-trivial equivalence analysis on Rust and C++ code, with graphical commentary on divergence
- Implemented using Rust; symbolic computations solved with Haybale and Boolector

**Senior Design Project** — **Completed May 2022**
*Colorado State University – Under Prof. Olivera Notaros* — *Department of Electrical and Computer Engineering*
- 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**
 *Shizcow/hotpatch* — Ⓡ *docs.rs/hotpatch*
- Rust crate for cross-platform hot-reloading of functions and methods at runtime as easily as possible
- Guarantees memory safety, thread safety, deadlock protection, type correctness, and name-space parity

**dmenu-rs** — **v5.5.1 Released Dec 2020**
 *Shizcow/dmenu-rs* — Ⓐ *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, garnering thousands of users and 100+ stars on GitHub