Devin Pohl

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[Shizcow • ▲ Shizcow • ⊕ www.pohldev.in

I recently completed my Computer Engineering undergraduate degree 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

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
 Web Based
 Boolector, GMP, OpenMP, OpenCL, OpenGL, GLSL, Rink.rs, Sage
 Rocket.rs, Zola, ReactJS, VueJS, NodeJS, ExpressJS, ¡Query

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

Shizcow/dmenu-rs

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 Shizcow/hotpatch

v0.3.0 Released Feb 2021

8 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

\Lambda 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