

Eli W. Hunter

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EDUCATION

NC State University – *BS Computer Science & Applied Mathematics*

Aug. 2018 – Dec. 2021

GPA: 4.0, Dean's List All Semesters, Member of Phi Beta Kappa Honor Society

EXPERIENCE

Microsoft – *Software Engineer Intern on Azure Core*

May 2021 – Aug. 2021

- Implemented the Container Storage Interface (CSI) gRPC protocol into Service Fabric, significantly expanding the suite of supported storage vendors and enabling the CRI+containerd runtime for 3rd party customers.
- Refactored C++ gRPC client implementation, removing 2000+ lines of copy-pasted boilerplate code and making all gRPC client APIs uniform.
- Enabled easier unit testing of C++ gRPC clients via auto-generated mock clients.

Aerial Robotics Club – *Software Team Lead & Vice President*

Sept. 2018 – June 2021

- Managed 8+ person team, running weekly meetings, assigning tasks, and keeping track of mission objectives.
- Swapped legacy telemetry and service architecture with the Robotic Operating System (ROS), improving performance and logging and allowing for debugging and simulation.

NC State University – *Teaching Assistant for MA 305 (Linear Algebra and Matrices)*

Jan. 2021 – May 2021

- Held weekly office hours via Zoom and answered student questions in the class Moodle forum.
- Graded all tests, providing feedback and generating statistical reports on test grades for the class.
- Fixed coding bugs in WebWork homework questions.

IBM – *DevOps Software Developer Intern on IBM Z*

June 2020 – Aug. 2020

- Refactored COBOL & PL/I parser builds, reducing build times from 3 hours to 20 minutes and artifact sizes from 3 GiB to 100 MiB.
- Optimized test case runner for IBM Z unit tests, reducing test times by 20%.
- Constructed a 1000+ node dependency graph of the entire product, improving visibility of structural issues and identifying key locations to refactor.

PROJECTS

Codie Discord Bot – *Async Rust, Sled, Discord API, Docker API*

github.com/elihunter173/codie-discord

A Discord bot which runs code snippets in a locked-down Docker container and replies with their output. Supports 30+ languages and multiple configuration options per language.

dirbuf.nvim – *Lua, LibUV, Neovim Plugin API*

github.com/elihunter173/dirbuf.nvim

A directory buffer for the text editor Neovim, allowing efficient and intuitive file management by editing the list of file names in a directory as if it were a regular text file.

Hugo Heading Render Hooks – *Go*

github.com/gohugoio/hugo/pull/7133

Added custom rendering hooks to markdown headings for the static site generator, Hugo, supplanting regex hacks.

TECHNICAL SKILLS

LANGUAGES (Async) Rust, Python, Lua, C, (Async) C++, Java, Go, Julia, JavaScript, Assembly, LaTeX, Regex

TOOLS Linux, QEMU, Docker, Git, GitHub Actions, Travis, Jenkins, NGINX, Cargo, Poetry, Maven

LIBRARIES gRPC, Protobuf, Tokio, ZeroMQ, LibUV, Cranelift, Boost.Test, Serde, Sled, Numpy, Flask