Emil Hofstetter

3705 Camelot Dr, 22003, Annandale, VA
hofsteek@dukes.jmu.edu
+1 571-594-6282
github.com/emilHof
www.emilhofstetter.dev

As an aspiring software engineer, I am deeply fascinated with building scalable, safe, and reliable code. I am passionate about building a digital world that enables everyone and allows all to pursue their dreams. I have experience developing code in a professional setting, have participated in multiple Hackathons, and maintain active contributions to open-source projects while balancing course work.

Education

BS Computer Science

James Madison University (2020 - 2024 Exp.)

3.63 Overall GPA

Professional Experience

Solutions Architecture Intern

ARC (Jun 2022 - Aug 2022)

- Rewrote Lambdas in Rust to increase the computational efficiency of the services.
- Used Python to design and build a backend service handling Snowflake ELT operations.
- Developed a POC with the other interns where my role was to set up API Gateway and write some of the backend services.
- Built out API test suites and contributed to the documentation of the API endpoints.

Mesh Network Development

Northrop Grumman (Aug 2021 - May 2022)

- Developed the communication protocol of the mesh network to be lightweight and efficient.
- Created an asynchronous application to manage the flow of information between the buoy sensors, internal storage, and the communication modules.
- Worked on an agile team while collaborating effectively with the other developers.

Awards & Credentials

AWS Certified Cloud Practitioner (June 2022)
Fall 2022 JMU President's List (3.9 < Semester GPA)
Spring 2022 JMU President's List (3.9 < Semester GPA)
Fall 2021 JMU Presidents List (3.9 < Semester GPA)

Abilities & Frameworks

Languages

Rust | Python | Java | JavaScript

Hard Skills

AWS | Git | Docker | Linux(Arch) | Bash

Soft Skills

Agile | Kanban | Test-Driven Development | SCRUM

Notable Projects

Skippy

Lock free Skip List (Nov 2022 - Current)

- Development and implementation of a thread safe, concurrent, and lock free Skip List in Rust.
- Designing a *safe*, idomatic, and ergonomic API that enables reuse and portability.
- Extensive testing and fuzzing to ensure soundness and memory safety.

Rust Square SDK

Square Unboxed Hackathon (May 2022)

- Building a Rust library that lets developers interact with the Square API in a declarative way. The library handles the underlying endpoint connectivity, request building, and JSON serialization and deserialization.
- Managing the development roadmap as an individual participant to get the project delivered by the Hackathon deadline.

Extracurriculars

Competitive Programming Club (2022)
Unix User Group - Secretary (2022)
Student Mentor - CISE Mentor Collective (2022)
Math Tutor - JMU Math Department (2022)