Christopher Mahoney

Berlin NY

(518) 560-9360 | christopher.mahoney2000@gmail.com | https://github.com/Alextopher

OBJECTIVE

Driven by a lifelong passion for learning and a desire to excel in both network/system administration and software engineering, I seek a dynamic role in the tech industry. At Tech Valley, I've honed my communication skills, but I've realized my true passion lies in learning and tackling diverse projects with a team.

SKILLS

Rust	Networking	Python
Go	JavaScript	Linux
Java	C	Docker
OSS	zfs	Flask

PROFESSIONAL EXPERIENCE

TECH VALLEY HIGH SCHOOL   **Albany, NY**
Teaching Assistant & FIRST Robotics Coach   Sept 2023–Present

- Mentor the TVHS FIRST Robotics Competition team on **Java** programming, **control systems**, electrical engineering, and **engineering design** principles. I manage the team's **website** and **GitHub** repositories.
- Applied advanced **Java design patterns** while programming our robot and taught them to students.
- Created a **Rust web-app** https://trace.mahoney.best that uses **geo-ip** lookup to visualize traceroute/tracert results using openstreetmap as part of a lesson on IP.
- Made **Open Source contributions** to my geo-ip provider github.com/ipinfo/rust and its dependency github.com/achanda/ipnetwork while working on my Rust app. Both sets of changes made **significant performance improvements**, **fixed bugs**, and improved **project CI**.

KITWARE, INC.   **Clifton Park, NY**
Software Engineer   June-Aug 2023

- Integrated **GNU Make**'s synchronous Jobserver support into **CMake**'s **libuv** asynchronous environment thereby improving cross-ecosystem compatibility.

EDUCATION

CLARKSON UNIVERSITY   **Potsdam, NY**
Bachelor of Science in Computer Science,   Dec 2022
(GPA: 3.2/4.0)

CLARKSON OPEN SOURCE INSTITUTE
Lab Director & Lead Network Administrator

- As lab director, I led meetings, maintained the **lab budget**, acted as a representative for our club, managed lab resources, and **recruited new members**.
- I built my University's Open Source **Software Mirror** from scratch in **Go**, upgraded server's hardware, and managed the **Linux** operating system. My system hosts 50 open source projects and has delivered 4.5 Petabytes of software.
- Rewrote my club's meeting manager web-app from **Node.js** to **Go**, making it more stable, scalable, and featureful.
- As the **lead network administrator**, I managed our network infrastructure, including firewall, DNS, DHCP, network switches, WiFi access point, and VM hosts. Additionally, I detected and mitigated a DDOS amplification attack by identifying and isolating a compromised device within our network.
- I still maintain and host some **Discord bots**, written in **Go**, for COSI online communities.