# Sam Wlody

# Software Engineer

Brooklyn, NY

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swlody.dev

# Summary

**Experienced Software Engineer with** interest in backend and infrastructure. Proficient in Rust and C++

# Education

▶ B.S. Comp. Sci.

2014 - 2018

▶ B.A. Physics

▶ Biology Minor

University of Rochester Rochester, NY

# Skills Skills

## Programming languages

Rust

C++

C

**TypeScript** 

HTML/CSS

Python

C#

**Technologies** 

Multithreading

Async **REST APIs** 

**Networking** 

Infrastructure

#### **DevOps**

Docker

CI/CD

Metrics

Monitoring

Cloud

#### **Database management**

**PostgreSQL** 

**SQLite** 

Redis

# Experience

## Participant in self-directed programming retreat

Recure Center, Brooklyn, NY

- Worked on personal projects and collaborated with other programmers with diverse levels of experience.
- ► Gained depth and breadth of knowledge of web technologies and infrastructure.
  - ▶ Built horizontally and vertically scalable backend services.
  - ► CI/CD with extensive testing and cloud native hosting of Docker containers.
- Created a small website to fetch a random poem. Utilized vanilla HTML with Rust & SQLite backend. (Code)
- Launched another interactive website where users could communicate data between a REST API and WebSockets by utilizing Redis. (Code) (Technical writeup)
  - Required live troubleshooting of scaling issues after being posted to forums.
- ► Honed distributed systems skills using the Maelstrom workbench. (Code)
- ► Created a personal website where you can read more about me!

### **Software Engineer**

2022 - 2023

GTS Securities, New York, NY

- ► Developed reconciliation system for messages sent and received by trading systems.
- ▶ Integrated with existing systems including Apache Kafka for reconciliation data, and Redis for reporting mismatches.
- ▶ Assisted new hires with on-boarding exercise to implement a simple trading model.

## Software Engineer II

2019 - 2022

Microsoft, Reston, VA

- ▶ Worked to implement an asynchronous and multi-threaded SFTP server in C++.
  - Integrated with existing backend storage APIs, logging and monitoring infrastructure, QA, testing and fuzz testing.
  - · Shared responsibilities for organizing and prioritizing sprint planning and participated in code reviews.
- Spent several days per month on-call as directly responsible engineer for API gateway
  - Troubleshooted and resolved issues across the full surface of the cloud storage API globally.
  - Required familiarity with every layer of the storage stack from public-facing SDKs and APIs down to the distributed filesystem.
  - Required digging deep into unfamiliar layers of the code helped to understand and quickly remediate customer issues.
  - Exercised communication skills to organize responses across teams.
  - ▶ Practiced software lifecycle management to ensure identified bugs were fixed in production.
  - Wrote root-cause analyses of incidents and coordinated mitigation and resolution of both the symptoms and underlying issues.
- ▶ Went beyond job scope to contribute to open source Rust SDK for Azure to add support for calling distributed filesystem APIs.

## **Software Engineer**

2018 - 2019

MTEQ, Lorton, VA

- ▶ Integrated autonomous field sensor systems with proprietary communication protocol based on Protocol Buffers and TLS.
- ▶ Collaborated with team of 2 other developers to create developer libraries for the protocol in C++, C#, and Python.
- Authored a code generator in Scala to convert XML definitions corresponding to protobuf messages into C++/C#/Python classes.

2024