

Mei Walker

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WORK EXPERIENCE

Ruby

Summer of Code Student Developer | Remote | May 2020 – August 2020

I improved Ruby's core language libraries by adding support for trailers in concurrent HTTP applications.

FLUX Research Group

Research Intern | Salt Lake City, Utah | May 2020 – Current

I am leading ongoing research on MQTT message brokers in distributed systems. I am currently writing a paper on diagnostic tests I wrote to measure performance in distributed IoT systems with Erlang.

University of Utah CHPC

DevOps Intern | Salt Lake City, Utah | March 2019 – Current

I troubleshoot packet loss within our networks, implement new automated tools such as Ansible playbooks, and write monitoring software. I also write about research in software defined networking.

PERSONAL PROJECTS

Anime Community

I am the lead sysop for a video site with over 100k registered users and 16k active monthly users. I utilize kubernetes for site load balancing, maintain a peer to peer data tracker, and wrote a dedicated CDN and image host from scratch. I automated a process to snapshot databases daily to ensure data reliability.

HackGT Registration

Registration and Ground Truth are a registration platform and an oauth SSO API for hackathons, respectively. I have packaged both of these pieces of software for a CI/CD pipeline, updated the oauth API to oauth 2.0 specifications, and pulled a fix for an upstream bug to NodeJS. These applications are both written in TypeScript.

Native Proxying through Wget

I have actively been maintaining wget: a popular terminal http client for unix systems. I wrote wget's native proxying feature and am adding new features to support the QUIC protocol. Wget is written in C, and I follow a test first approach to ensure my code is efficient and bug free.

EDUCATION

University of Utah

B.S. Computer Science and Electrical Engineering | 3.56 GPA | May 2022 (expected)

I am the chief director for HackTheU, Utah's largest hackathon. I am also the treasurer for our student IEEE chapter.

SKILLS

- Ruby, Erlang & Elixir, Python, C, and C++
- Docker, Kubernetes, Chef, and Ansible
- Node.JS, React, and JavaScript
- Linux, command line, and shell scripting
- LAMP, CDNs, and server architecture design
- TCP/IP networking and distributed systems