MICHAEL NASH LUFFMAN

nashluffman@gmail.com www.nashluffman.com www.github.com/Nashluffy London, England· +44-7749714191

Education

University of North Carolina at Charlotte

December, 2019

GPA: 3.63/4.0

Bachelor of Science in Electrical Engineering

Experience

Apple - Senior Site Reliability Engineer; London, England

06/23/2025 - Current

Thought Machine – Software Engineer; London, England

07/18/2023 - 06/16/2025

- Developed and maintained in-house Kubernetes provisioning tool, used daily by 200+ engineers
- Re-architected existing monitoring stack for better performance and reliability, with lower cost
 - o Over 400 prometheus instances each shipping ~5 million timeseries simultaneously.
 - o Reduced cost from \$10k/month to \$500/month.
 - o Contributed to <u>Thanos</u> and engaged with <u>prometheus-operator</u> maintainers
- Shipped clustered Redis implementation in the company, contributing <u>upstream</u> along the way
 - o Developed client benchmarking suite to prove out performance
- Increased core endpoint performance from 800 rps with p95 latency of ~200ms to 4k rps with p95 latency of ~75ms
 - o Achieved via server-side batching, caching, and DB query improvements
 - o Instrumented continuous profiling and tracing for given service

Apple – Cloud Software Engineer; Durham, North Carolina

07/11/2022 - 07/14/2023

- Developed and maintained CLI and gRPC server in Go as part of internal Kubernetes solution
- Directly responsible for internal product on AWS, involving lifecycle management of over 1,000 Kubernetes clusters.
- Developed hardened terraform modules leveraged by hundreds of developers everyday.
- Provided end-user guidance for Kubernetes usage and associated components (ie. Horizontal autoscaling on custom metrics via Prometheus)

IBM - DevOps Engineer; Durham, North Carolina

01/21/2020 - 07/11/2022

- Scaled and maintained a container vulnerability management tool to serve vulnerability reports for 10,000+ container images, written in Go.
- Co-developed a Kubernetes mutual TLS implementation for all Watson services, including an operator for trust distribution.
- Implemented a Kubernetes operator to handle the lifecycle of 100+ TLS certificates, written in Go.
- Mentored an intern in the development of a ChatOps bot in NodeJS to interface with kubernetes clusters from Slack.
- Responsible for CDN (Akamai) configuration, backups, and automation for 500+ hostnames. Written in Go and Python.
- Developed and maintained 50+ Kubernetes clusters of varying sizes, from 20 nodes to 600 nodes.

Academic & Personal Projects

Homelab - Multi-Architecture Kubernetes Cluster

- Installed a light-version of kubernetes, K3s, on both ARM (Raspberry Pi's) and x86 machines.
- Containerized Python Flask app with multi-architecture support, exposed by Nginx ingress.
- Deployed Golang web-scraper to expose local mountain bike trail status as an API.

IoT Vehicle Autonomy Project

- Collaboratively developed an infrastructure-to-vehicle IoT system that incorporates autonomy into older vehicles.
- Drafted an 80-page business plan complete with financial, technical, environmental, and ethical details.
- Presented the project to the North Carolina Department of Transportation and received \$5,000 in funding from the NSF.