# Doug Aaser

# doug@aaser.net

#### **EXPERIENCE**

# Cloudflare, Systems Engineer

March 2024 - Present

- ♦ Testing at scale
  - Custom test runner and control plane for network correctness testing on the edge

Rust, Go

#### Workday, Software Development Engineer

July 2023 - March 2024

- Cloud platform engineering
  - Focused on multi-cloud cluster lifecycle and developing platform services used by the rest of the cloud engineering organization
  - Wrote admission webhook for controlling scheduling of Kubernetes nodes/pods

Go

• Custom Cluster API operator for provisioning EKS clusters

 $Go,\ Kubernetes$ 

o Kubernetes operator for internal service mesh provisioning

Go

o Production readiness of platform components including observability and logging

# Shopify, Senior Software Engineer

June 2022 - May 2023 (Laid Off)

- Global routing and networking team
  - o Kubernetes controller for load balancing traffic from L7 edge directly to core services

Go Rust

 $\circ~$  Serverless worker for routing requests to core services

NGINX, Lua

Location aware edge routing based on GCP region
gRPC cache support of global routing table

Go

• Native Rust EJSON library

Rust

- ♦ Black Friday Cyber Monday (BFCM)
  - Kubernetes fleet management and scaling algorithms surrounding the need to handle traffic loads caused by the largest sales period of the year for Shopify
  - Managed fleets which peaked at over 60M RPM
- On-call duties including incident triage and post-incident retrospective

## Truist, Software Engineer II

May 2020 - June 2022

- ♦ LightStream Expansion technical lead for AWS serverless
  - Project within the bank to create an online only, cloud-native banking experience for customers. This enables customers to move money in real time and for Truist to offer a more competitive online banking experience
- ♦ Re-wrote legacy Java microservice stack as Golang serverless applications
- $\diamond\,$  Lead developer for team writing serverless cloud banking core

 $Go,\ AWS\ Lambda$ 

- ♦ Forerunners in Truist org for adoption of AWS as an all-in-one platform
- ♦ Experience with EKS, IAM, EC2, Linux Networking, ALB, and more
- $\diamond \ \ \text{Wrote entire Terraform/Kubernetes stack for repeatable, consistent deployments}$

Kubernetes, Terraform

Helped write pipeline for deploying AWS resources and microservices, as well as the serverless architecture.  $Python,\ Bash,\ Terraform$ 

#### Kabbage, Software Engineer

March 2020 - April 2020 (Laid Off)

♦ Worked on Kabbage card 2.0 Alpha and Beta releases

### AT&T, Member of Technical Staff

July 2018 - March 2020

- ♦ AT&T Network Cloud
  - Worked on Openstack Airship and AT&T Quality Automation (AQuA)
  - $\circ\,$  Open source initiative to leverage Kubernetes and Openstack to create a declarative platform underpinning AT&T's 5G network
- ♦ Completed functionality in Openstack Deckhand to allow encrypted documents to be stored and retrieved from Openstack Barbican

Python

 $\diamond$  Implemented Patroni on Postgres to enable HA clustering functionality within the undercloud

Kubernetes, Helm

- Decreased downtime for many of the other Airship components by 33%
- ♦ Created automated scripts to set up an internal gating pipeline
  - $\circ\,$  Decreased approximate time needed to run and test changes in a local environment by 1-2 hours

# University of Tennessee, Software Engineer

Summer 2017

Java

Worked with Y-12 National Security Complex on their internal readiness certification software, which will be used for the upcoming Uranium Processing Facility and other projects. Completely remade old system to work with existing data as well as delivering detailed spec documents

# ORTEC, Web Developer

Summer 2016

♦ Developed a management system (DMS) to be used for internal radiation detector manufacturing, which was a high-profile project with many influential internal customers

AngularJS

## Oak Ridge National Labs, Research Student

Summer 2015

## **EDUCATION**

Bachelor of Science in Computer Science (University of Tennessee '14-'18)

## NON-WORK PROJECTS

- Implemented a neural network to scan videos and label objects in the video. This then allows the user to find specific objects that exist within video. Third place VolHacks. https://github.com/alexklibisz/tensortube
- $\diamond\,$  Android app developed as a class project. Allows users to follow friends and see which of their friends is looking for someone to eat a meal with.

Java