

Experience

Senior Software Engineer, Core Services at Udacity

March 2020 - Present

Bridging the gap between Product and Platform by providing common services and libraries, managing user authentication, and expanding infrastructure capabilities.

- Enabled privately networked database platform migrations leveraging the [Debezium](#) project (RDS, Postgres, CockroachDB, Confluent, Kafka, Kafka Connect, Go, Terraform)
- Created [pgverify](#), an open source CLI tool and Go module to assert data consistency between varying database platforms (Go, Postgres, CockroachDB)
- [End to End: Testing Go Services](#), published on Medium
- Evangelized OpenTelemetry adoption and enforced conventions by maintaining common libraries (Go, Datadog, OpenTelemetry)
- Combated dependency fatigue by creating common [Renovate](#) configurations to fit our technologies
- Reclaimed our neglected but critical Kafka infrastructure with canary automation, actionable metric alerts, and appropriate resource scaling to increase uptime and developer confidence (Kafka, AWS, DataDog, Terraform, CircleCI)
- Developed features, optimizations, and broad refactors for high-load (~50 req/sec/instance) distributed user data and authorization service (Golang, Docker, AWS RDS)
- Implemented persistent geo-based experience bucketing to enable more accurate insights from pricing experiments (Typescript, Cloudflare Workers/KV)
- Refactored login page to improve accessibility for end users, enabling key institutional contract requirements (Typescript, React, Cypress)
- Implemented performant JWT-based SSO to Zendesk, reducing friction for support agents and end users alike (Golang)
- Effectively collaborated with a distributed international team

DevOps Engineer at Cigna Healthcare

July 2018 - February 2020

Provided the 'Golden Guardrails' of testing and deployment automation for a large mix of technologies and even larger mix of engineering teams

- Overhauled HIPAA-compliant ETL performance testing pipelines to reduce timelines from days to hours (Jenkins, Python, Prometheus, Kubernetes/Openshift)
- Implemented deployment automation for on-demand Jenkins-on-EKS in hybrid public/private cloud environment (Terraform, Packer, Kubernetes/Openshift, Jenkins)

News Content Software Engineer at FactSet Research Systems

July 2016 - April 2018

Optimizing and normalizing article ingestion for financial analytics in real-time

- Implemented microservice pipelines for ETF.com and Nordic Nasdaq news pipelines with <1sec end-to-end performance requirements (Python/PyPy, C++)
- Side-by-side developed Golang services to benchmark against existing C++ implementations to drive internal adoption (Golang, C++)

Software Engineering Internship at Google

Summer 2015

- Contributed to internal performance testing tool which, given a complex topology of nodes and protocols, would capture bare-metal statistics for debugging and optimization (C, C++)
- Implemented protocol support for RDMA and development versions of QUIC/HTTP3 (C++)

Technicals

Languages: Golang, Python, Bash, Typescript, C++

Tools: Docker, Kubernetes, Helm, Terraform, Packer, Ansible, CircleCI, GitHub Actions, Jenkins, Gitlab CI, AWS

Paradigms: Edge Computing, Microservices, SemVer, Agile, Event Streaming, Everything as Code

Education

Rensselaer Polytechnic Institute

Bachelor of Science in Computer and Systems Engineering

Class of May 2016

Nanyang Technological University, Singapore

Fall 2014

Certifications

AWS Certified Solutions Architect - Associate
Certified Cloudbees Jenkins Engineer (CCJE)

May 2019 - May 2022
November 2019

Honors

Eagle Scout with Troop 97 in Fort Collins, CO

December 2011