

## 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)
- 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, Prometheus, Packer, 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

Class of May 2016

Bachelor of Science in Computer and Systems Engineering

Nanyang Technological University, Singapore

Fall 2014

## Certifications

AWS Certified Solutions Architect - Associate

May 2019 - May 2022

Certified Cloudbees Jenkins Engineer (CCJE)

November 2019

## Honors

Eagle Scout with Troop 97 in Fort Collins, CO

December 2011