

## Experience

### Product Infrastructure Engineer at Udacity

*Current employment as of March 2020*

Managing the systems between Platform and Product; fighting the Tragedy of The Commons

- 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) 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 government 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 an experimental version 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

*May 2019 - May 2022*

Certified Cloudbees Jenkins Engineer (CCJE)

*November 2019*

## Honors

Eagle Scout with Troop 97 in Fort Collins, CO

*December 2011*