DANIEL ZHOU

✉ daniel.zhouqx@gmail.com
○ github.com
in linkedin.com

EXPERIENCES

Nov 2023 - Jul 2024 (9 months)

DevOps Intern | GovTech, Singapore

Whole-of-Government-Application-Analytics, GDS

- Architected cloud solutions orchestrating *20+* **AWS** services and refactored **GitLab CI/CD** pipelines *across 15+ projects*, reducing *pipeline execution time by ~40%*.
- Established a reusable centralized **Terraform** module repository, reducing code duplication by an *est. 40% across 10+ projects* and *onboarding 50+* unmanaged microservice resources.
- Developed a **Golang ChatOps platform** automating *4 critical operational tasks* and implemented *7 event-driven automation solutions*, cutting man-hours by an *est. 20 per week*.
- Led *team-wide adoption* of **AWS Security Hub** and **Prowler**, boosting CIS security scores by *over 20% across 3 environments*.
- Refactored **VPC** architecture with **AWS Network Firewall** and introduced **WAF** to block traffic to *~100 suspicious IPs*.

LEADERSHIP

May 2025 - Present

Chairperson | Sheares Web

Student Led Initiative in NUS Sheares Hall

- Engineered a pipeline using **Liquibase** and a custom **Golang** script to *declaratively onboard 1,500+ rows of data* from CSV into PostgreSQL, saving *>50 man-hours*, reducing change failure rate from *75% → 5%* and cutting MTTR from *infinite → 1 minute*.
- Introduced an automated **Gale–Shapley** CCA allocation system, reducing manual workload by *~30 man-hours* per allocation cycle.
- Migrated legacy monolithic systems to serverless solutions in **AWS**, cutting costs by *86% from $893 → ~$120 per annum*.
- Led the development of the **Sheares App**, actively used by *500+ residents monthly*, boosting hall event participation by *~20%*.

PROJECTS

Odyssey Framework

Framework to empower use of IaC and CI/CD for devs

- Conceptualized a framework enabling developers to spin up production-grade projects in *<30s*, reducing setup time by *~90%*.
- Built a **Golang TUI CLI** using Jinja templating to generate infrastructure, CI/CD, and boilerplate with dynamic field injection.
- Established well-documented **Terraform** modules for 10+ **AWS** services including **ECS, Lambda, Cloudfront, Route53, VPC**.
- Implemented multi-environment **GitHub Actions CI/CD** pipelines with **full CI/CD automation** (unit + integration tests, MR gating).

Repository

CERTIFICATIONS

AWS Certified Solutions Architect Professional

May 2024

AWS Certified Developer Associate

Mar 2023

HashiCorp Certified Terraform Associate

Apr 2023

AWARDS

NUS Hack&Roll 2025 Winner

AlphaBot - Automated Crypto Trading Bot

SKILLS

- AWS Cloud Experience (2 yrs)
- Terraform, GitLab, GitHub Actions
- Golang, Java, Typescript, Python
- React Native, Expo, Firebase, TailwindCSS
- Docker and Kubernetes
- Atlassian Suite (Jira and Confluence)
- ELK Stack, Prometheus and Grafana

EDUCATION

Jan 2024 - Present

National University of Singapore

Bachelor of Computing in Computer Science

Sheares Web - Chairperson
Sheares Swimming - Vice Captain
Sheares Engagement Camp - Main Committee (Progs)

Jan 2020- Dec 2021

Eunoia Junior College

GCE A-Level

House and Sports Committee
Deans List Academic
EJC Unconference Mentor