

Jerome Goh

jerome.goh.work@gmail.com | (+65) 82486050 | LinkedIn | GitHub | Singapore

EDUCATION

National University of Singapore
Bachelor of Computing - Computer Science
CGPA: 4.53/5.0

Singapore
Aug 2022 - May 2026

Coursework: Programming Methodology I & II, Parallel & Concurrent Programming, Data Structures & Algorithms, Software Engineering

Teaching Assistant: CS2030 Programming Methodology II (Object-Oriented & Functional Programming), CP2106 Independent Software Development Project (Software Engineering)

SKILLS

- **Languages:** Python, Java, TypeScript, C++, SQL, Bash
- **Backend:** FastAPI, Node.js, PostgreSQL, DynamoDB
- **Frontend:** React.js, Next.js, TailwindCSS, Tanstack Query
- **Infrastructure:** Linux, Terraform, Ansible, Docker, Prometheus, Grafana, Kubernetes, CI/CD, AWS
- **Certifications:** AWS Solutions Architect - Associate (SAA-C03)

EXPERIENCE

Bytedance
Software Engineer Intern

Singapore
Aug 2025 - Present

- Contributed to a **distributed logging, indexing, and querying system** using Quickwit in Rust, integrating ByteMQ and TOS.
- Developed a **cloud-native migration** of proxy cluster deployment from Ansible to Kubernetes using Kustomize, hosting numerous G3 proxies.
- Engineered a **GitOps pipeline** using ArgoCD for state consistency and automated deployment.
- Implemented a **Kubernetes-wide logging pipeline** using Vector Helm charts, deploying agent and aggregator components.
- Designed a **custom WebSocket middleware** using goroutines and channels to demultiplex and distribute logs reliably.
- Integrated **Prometheus scrape jobs** and push-based models for compute, cluster, and application metrics.

Govtech Singapore
Software Engineer Intern

Singapore
Jan 2025 - Aug 2025

- Implemented a **FastAPI proxy service** enabling seamless cross-team API integration.
- Built **AWS infrastructure** (VPC, IAM, ECS, ALB/NLB) using Terraform with formatting and linting protocols.
- Reduced **CloudWatch costs by 20%** and improved query performance by 30% using Python coroutines for concurrent log processing.
- Resolved **multi-account AWS performance bottlenecks** using cross-account API Gateway, SQS, and Lambda reserved concurrency.
- Integrated **AWS Cognito** with a custom Lambda trigger to synchronize user pools with PostgreSQL.
- Designed a **schema-merging solution** preventing race conditions during writes.
- Implemented a **CI/CD pipeline** using Flyway for controlled database migrations.

Beep Technologies
Software Engineer Intern

Singapore
Dec 2023 - Jun 2024

- Improved **Google Maps performance by 50%** in a PWA using debouncing, superclustering, and framer-motion animations.
- Refactored the **frontend state machine** to support Anti-Idling feature and custom business logic.
- Implemented a **virtualized infinite listview** for charging stations and sessions.
- Introduced **TanStack Query** with generic/custom hooks, eslint, prettier, and husky pre-commit hooks.
- Improved **React Native UI consistency** across Android and iOS.
- Integrated **push notifications** using expo-notifications and backend middleware for inactivity-based logout enforcement.

HONOURS & AWARDS

- 3rd Place Overall Best Project (ML/AI), Anaconda Data Science Expo 2023
- 2nd Place, NUS Fintech Summit 2024 (Tokka Labs Track)