

RAY TOH HONG XIAN

raythx98@gmail.com | +65 81612103 | [LinkedIn](#) | [Github](#) | [Website](#)

Experiences

GetGo *Software Engineer* | Singapore

Jan 2023 – Present

- Rearchitected existing monolithic systems to Event-driven microservices
- Introduced n-gram tokenizers in Elasticsearch mapping, reducing the time taken for substring search queries on large datasets from 5s down to 0.5ms
- Integrated backend services with Checkout, a third-party payment provider
- Implemented Saga for distributed transactions that span across multiple services using the orchestration pattern
- **Go, .Net, Solace, MySQL, Redis, Elasticsearch, gRPC, Docker, AWS, .Net**

Carousell *Software Engineer* | Singapore

Aug 2022 – Dec 2022

- Orchestrated the overhaul of the categorization for product listings, a colossal project that migrates 5,000,000+ listings without causing any system downtime
- Migrated existing endpoints from Django monolith to Go microservices with improved code modularity and error handling, reducing error rate by 99+%
- Ensured zero system downtime in core functionalities by resolving system incidents promptly during on-call rotations
- **Go, Redis, Elasticsearch, GCP, Kafka, gRPC, Proto3, Docker, Kubernetes, Postgres**

DBS Bank *SWE Intern* | Singapore

May 2022 – Aug 2022

- Developed enhancements on TRAX, a proprietary forex application in Go
- Improved the observability of API calls in microservices with distributed tracing using Open Telemetry and Jaeger
- Conducted automated Unit Testing and Integration Testing on new features to prevent regression
- **Python, Go, MariaDB, Redis, Elasticsearch, Kafka, OpenShift**

Reluvate Technologies *SWE Intern* | Singapore

Dec 2021 – Feb 2022

- Spearheaded the digitalization of client companies by automating labour-intensive operations and processes
- Facilitated weekly UATs to gather new requirements from relevant stakeholders
- Ingested data from legacy systems into our proposed system
- **Django, Python, Postgre, Nginx, AWS, React.js**

DSTA *ML Engineer Intern* | Singapore

May 2021 – Aug 2021

- Trained AI models through deep reinforcement learning methods
- Explored the use of common DRL algorithms, including Soft-Actor Critic and Proximal Policy Optimisation
- Incorporated a self-attention mechanism to improve on the existing models.
- **Python, C#, Unity, ML-Agents, PyTorch**

Projects

React Portfolio Website [View Website](#)

- Static website built on React.js and hosted on a custom domain
- **React.js, Bootstrap, Material-UI, gh-pages**

Personal Blog [View Blog](#)

- Static blog site built on React.js & based on Gatsby
- **React.js, GraphQL, Gatsby, gh-pages**

URL Shortener [Github Repo](#)

- Full stack web services built using javascript & Nginx for reverse proxy
- **MySQL, Express.js, React.js, Node.js, AWS, Nginx**

Skills

Languages

Go, C++, Python, C#

Databases

PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch

Technologies

Git, gRPC, Kafka, Solace, Docker, Kubernetes, AWS, GCP, Jaegar

Frameworks

.Net 6.0, Gin, Gorm, Golang-Migrate, React.js, Node.js

Education

National University of Singapore

Bachelor of Computing in
Computer Science (with Honours)
Graduated 30 August 2022

- Graduated with Distinction

Coursework

- Software Engineering
- Artificial Intelligence
- Computer Networks
- Computer Security
- Database Systems

Teaching Assistant

- Programming Methodology
- Computer Organisation

Leadership

- Music Director, Raffles Hall Musical Production
- Director, Raffles Hall Ensemble
- Social Secretary, NUS Chinese Orchestra

Achievements

- AWS Code Jam winner
- AWS ECIP Finalist & Winner for Best Architecture
- Brainhack [7th most accurate model](#) for fake video detection

Certifications

- AWS Certified Solutions Architect (Associate)
- IBM Introduction to Containers, Kubernetes, and OpenShift