

# Ron Quah

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LinkedIn

GitHub

## Education

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National University of Singapore

August 2023 – May 2027

Bachelor of Computer Science

## Experience

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Incoming Software Engineer Intern

May 2026 – August 2026

Google

Singapore

Backend Engineer Intern, Data Platform | *Spring, Kafka, Redis, Grafana* December 2025 – April 2026

Shopee Singapore

- Designed and implemented a **distributed log storage pipeline** using **Kafka** and **ClickHouse** (**ReplicatedMergeTree**), leveraging **partitioning, sharding, and replication** to reliably ingest and serve logs for **1M+ task instances daily**
- Improved data quality service reliability by implementing **Grafana monitoring** and optimising **thread pool concurrency**, reducing memory usage by **30%** and improving system stability under load
- Collaborated with **SRE** to architect ephemeral preview environments using **Kubernetes namespaces**, enabling **per-PR isolated deployments** with namespaced resources (**Kafka topics, S3 prefixes, Redis keys**) and automated **CI/CD provisioning and teardown**

Software Engineer Intern, Global KYC | *Spring, MySQL, Kafka, TestNG* May 2025 – November 2025

Binance Singapore

- Designed and implemented a scalable **Spring Boot microservice** for a multi-stage document verification pipeline, orchestrating OCR extraction and **LLM-based compliance checks** with **RAG-driven jurisdiction rules**, generating explainable pass/fail previews and reducing manual compliance review time by **40%**.
- Engineered a fault-tolerant **Kafka** fallback mechanism using **Redis** as a temporary persistence layer during broker unavailability and **ZooKeeper** leader re-election, enabling reliable message recovery and reprocessing after cluster stabilisation.

Junior Developer | *React, Express.js, Tailwind, JavaScript*

November 2024 – May 2025

Reform DAO

Remote

- Built full-stack airdrop features by integrating **React** UIs with **Express.js** APIs, designing client-server data flows to support up to **3,000 users** during peak usage.
- Architected data-driven dashboards using **TanStack Query** for API orchestration and caching, and **TanStack Table** for efficient client-side data presentation, improving responsiveness and scalability of frontend data handling.

FrontEnd Developer Intern | *React, Next.js, Tailwind, JavaScript*

July 2024 – September 2024

Classpoint

Singapore

- Architected and maintained responsive web interfaces using **React** and **Next.js**, designing reusable component hierarchies and Tailwind-based design systems to enable consistent UI composition and rapid iteration.
- Collaborated cross-functionally to deliver **10+ production pages**, aligning frontend architecture with product requirements and backend APIs, and ensuring clear separation between presentation, state management, and data-fetching concerns.
- Optimised client-side performance by refactoring component trees and leveraging **Next.js dynamic imports**, lazy loading, and code-splitting strategies to reduce initial bundle size and improve page load times.

Machine Learning Engineer Intern | *PyTorch, Python, Docker*

June 2022 – April 2023

Digital Intelligence Service (DIS)

Singapore

- Designed and implemented a real-time computer vision inference pipeline for operational military use, supporting low-latency target detection under constrained deployment environments.
- Built and optimised CNN-based object detection models using **ResNet50** and **YOLOv5**, tuning model architectures and preprocessing pipelines to achieve **80% target detection accuracy** during live field exercises.
- Profiled and optimised end-to-end inference workflows, reducing system processing latency by **30%** through pipeline restructuring, batching strategies, and runtime performance tuning.

## Technical Skills

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**Languages:** Python, JavaScript, Java, Golang, TypeScript, HTML/CSS, SQL (PostgreSQL, MySQL), MongoDB

**Developer Tools:** VS Code, Docker, GitHub, Jest

**Frameworks:** React, Next.js, Spring Boot, Express.js, TensorFlow, PyTorch

**Technologies:** Apache Kafka, Apache Spark, Redis, Firebase, ClickHouse, Grafana, Google Cloud Provider (GCP), AWS (Amazon Web Services)