Chong Yun Long
Fullstack Software Engineer

contact

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languages [human]

- english → fluent
- mandarin chinese → fluent
- japanese → conversant

programming

- Typescript, React, Redux, Next.js
- Java, Spring Boot
- C#, ASP.NET core
- AWS, Terraform, Kubernetes
- Python, Ruby on Rails

experience

Goto Financial
Lead Software Engineer, Commerce Enablement – Moka POS   Jun 2021 → Now

- Managed a team of ≈10 engineers ranging from junior to lead engineers. The team is responsible for delivering features across multiple platforms (Backend, iOS, Android, and Web) for Commerce Enablement's flagship *Moka* product.

- Oversaw the development of one of the most difficult projects (*Bundle Package*) for *Moka*. The feature was successfully launched after a six-month development period.

- Worked on Apache Flink proof-of-concepts. This includes building reusable code templates, setting up CI/CD, and automating alerting.

- Wrote scripts and pipelines to automate Kafka Connect administrative tasks.

- Converted Javascript codebase (>4000 files) to Typescript, improving codebase maintainability and reliability.

- Migrated browser tests from Selenium to Playwright, resulting in an improvement in end-to-end runtime by up to $5\times$.

- Introduced tools such as OpenAPI client generation, redux toolkit and tailwind to reduce superfluous code, increase productivity and decrease bugs.

- Technologies: Kubernetes · TypeScript · ReactJS · Java · Python · JavaScript

Indeed
Senior Software Engineer, Careers   Apr 2019 → Jun 2021

- Full stack engineer working on *Careers Explorer* and *Certifications*. *Career Explorer* is the first large scale public facing node application at Indeed with over two million month views.

- Lead the frontend architecture design of *Careers Explorer*.

- Built and launch *Careers Explorer* together with a team of four engineers in three months. This includes various devops tasks (production/error monitoring, CDN integration, CI/CD pipelines).

- Coached both engineers within and outside of the team on various best practices ranging from API design, typescript and react development, backend best practices.

- Migrated *Indeed Certifications* from legacy Django templates to React.

- Technologies: Next.js · TypeScript · ReactJS · Java · Python · JavaScript

nuTonomy/Motional
Senior Software Engineer, Data Platform   Sep 2018 → Apr 2019
Software Engineer, Data Platform   Jan 2017 → Sep 2018

- *nuTonomy* was acquired by *Delphi* (now *Aptiv*) in Oct 2017 for USD$400 million and subsequently became part of *Motional,* a joint venture between *Aptiv* and *Hyundai*.

- Full stack developer (.NET Core/React) for shared services/mapping team.

- Built large scale docker-based compute orchestration infrastructure which is able to dynamically scaled to support and coordinate hundreds of machines on AWS. The platform is used to support ML training pipelines, generate autonomous driving footage, running large scale safety simulations and computing important metrics.

- Set up one-command deployment procedures for all backend microservices by leverage on AWS cloud services (Serverless, Terraform). Uptime is higher and less error prone as compared to SSH-based deployments used previously.

- Setup and maintain Hadoop cluster processing large amounts of data generated from vehicle logs (4GB per vehicle per min).

- Introduced and coached the software team on Typescript/React. New CRUD services are written in Typescript/React and old services are incrementally rewritten using Typescript.

- Built and pioneered various microservices using modern .NET core on linux. Established coding standards for all backend microservices used in the company.

- Set up company-wide authentication/authorization using Auth0.

- Implemented tiling based three.js mesh garbage collector which improved frame rates of annotated maps by 300%.

- Technologies: Terraform · Amazon Web Services (AWS) · TypeScript · C# · .NET Framework · ReactJS · Python · JavaScript

Government Technology Agency of Singapore (GovTech)
Product Engineer, Government Digital Services (GDS)   Jan 2015 → Jan 2017

- Ruby on Rails/React.js developer for *Business Grant Portal (BGP)* involving various government agencies.

- Re-engineered BGP's frontend/backend into a single-page application to provide a slicker user experience and interface.

- Established a unified architecture for *BGP* to reduce application complexity, improve code reusability, reliability and performance.

- Mentored and coached the team, new hires and vendors on the latest open source technologies.

- Employed agile software development methodologies and techniques (scrum, test-driven development, pair programming) to deliver quality products with high business value.

- Technologies: Ruby on Rails · Ruby · ReactJS · JavaScript

education

National University of Singapore
1st Class Honours in Bachelor of Computing, Computer Science   Aug 2010 → June 2014

- Dissertation (Applied Cryptography) – *Efficient Key Aggregation for Cloud Storage*

- Specialization in Information Security, focus area in Parallel Computing

- Awarded Dean's List for 3 semesters

publications

Practical and Scalable Sharing of Encrypted Data in Cloud Storage with Key Aggregation   IH&MMSec 2016

React Rails for Business Grants Portal   Medium