Lau Kar Rui

+6583221353 hi@karrui.dev github.com/karrui linkedin.com/in/karrui

EXPERIENCE

Open Government Products

Singapore

Lead Software Engineer

April 2024 - Present

- As one of the organisation's subject matter experts on frontend engineering, started a Frontend Readability Working Group to help review or give inputs on frontend engineering artifacts.
- To uphold engineering quality (and continuing from previous efforts), I was in charge of setting organisationwide testing expectations, which includes ensuring teams run their tests in continuous integration pipelines, monitoring their tests' flakeyness and coverage.
- Embedded myself into multiple teams across the organisation to raise (or maintain) engineering standards. This was done via mentoring (junior or otherwise) engineers, setting up project foundation and architecture, churning out code and code review.

Senior Software Engineer

October 2021 - April 2024

- Tech lead for the new MyActiveSG+ application, a webapp for Singapore's national movement to promote active living. Scoped, prioritised and contributed features, and managed stakeholders for 2 successful pilots and subsequent release to the public. The app easily handles ~150,000 facility/programmes/passes bookings per month.
- Lead, scoped and contributed significantly to the migration of FormSG's frontend framework from AngularJS to React 17 (latest version at the time) with **zero downtime**. FormSG is a form builder for the Singapore Government.
- Created and maintained our internal design system used across 70% of organisation's current live projects, released as an npm package, achieving visual continuity across our products and reducing developer toil.
- Propagated and maintained our organisation-wide starter kit template, incorporating best practices and baseline-functionality to be used when bootstrapping a new product, allowing engineers to focus on product market fit instead of spending time on setting up the infrastructure. 70% of all live (and experimental) projects in 2024 were bootstrapped with OGP Starter Kit.
- Champion the use of Storybook and Chromatic as a visual regression testing and usage-guidelines tool across the organisation.
- Wrote lambda pipelines to automate parts of patient and case management tasks relating to Singapore's COVID-19 Endemic response.

Software Engineer

February 2020 - October 2021

- Lead, scoped and completed full rehaul of FormSG's backend API endpoints (with backwards compatibility) from JavaScript to Typescript, which includes renaming, simplifying, and refactoring endpoints to a more RESTful and meaningful state, now being fully type-safe.
- Built the entire clinician-facing frontend application for Singapore's COVID-19 Appointment System to allow clinic staff to manage appointments and patients coming in for their vaccinations.

Google Singapore

Software Engineer Intern

May 2019 - August 2019

• Delivered the bill-split feature in the (then) Android application, including but not limited to high level architecture, design decisions, implementation, and comprehensive testing

EDUCATION

National University of Singapore

Bachelor of Computing CAP: 4.45/5.00, Honours (Distinction)

2016 - 2019

SKILLS

- Web Application Development Node.js, TypeScript, React.js, Next.js, CSS, Design Systems, SQL
- Infrastructure Docker, AWS, Pulumi, Infrastructure as Code

PROJECTS

• Developed Reify (available in the iOS Appstore), an app that allows you to create virtual saving goals. 2020