# Ricky Mao

rickyrmao@gmail.com • rickymao.me • github.com/rickymao

**Languages**: TypeScript, JavaScript, Python, CSS, HTML5, Swift, GraphQL, SQL, C++, Java
**Libraries/Frameworks**: React, Next.js, Redux, Apollo, Node.js, Express, Angular, Feathers
**Technologies**: Firebase, Firestore, MongoDB, Docker, PostgreSQL, AWS, Figma, Unix, MySQL

---

## Education

**University of Waterloo** │ Bachelor of Software Engineering  *Sept. 2019 - Apr. 2024*

## Experiences

**Tesla** │ Software Engineering Intern  *May. 2022 - Aug. 2022*

- Pioneered and integrated error reporting functionality into Tesla's Powerhub dashboard with **GraphQL**, **TypeScript**, and **React**, enabling **over 100,000** users to resolve issues with their energy resources and equipment.
- Directed the design and creation of a Dark Mode feature for Tesla's PowerHub dashboard, using **TypeScript**, **React**, and **Next.js**, increasing user satisfaction by **40%**.

**Shopify** │ Front-end Developer Intern  *Sept. 2021 - Dec. 2021*

- Developed checkout and discount UI components with **TypeScript**, **React**, and **Redux** in the UI Extensions library to enable **over 22,000 developers** to make Shopify checkout applications.
- Optimized code coverage by **25%** using **Jest** unit tests for **React** components in Shopify's web client and library.

**Vretta** │ Software Developer Intern  *Jan. 2021 - Apr. 2021*

- Built dashboards to process **over 150,000** student test results for Canadian education ministries by leveraging **Angular**, **Express**, and **Feathers**.
- Overhauled Vretta's version control system using **Angular** services and components, allowing users to track changes when designing online exams.
- Devised and deployed an algorithm on **AWS Lambda** to process marker performances and developed schemas in **SQL** and HTTP API endpoints to manage marker statistics.

**Blueprint** │ Software Developer  *Jan. 2020 - Jan. 2021*

- Collaborated with a team of designers to create a web application that helps Waterloo Paramedic Services triage and process patients in events with **over 30,000 attendees**.
- Created UI components for hospital resource dashboards, using **TypeScript** and **React**, and leveraged **Apollo** Client to manage states with **GraphQL** integration.
- Implemented a **GraphQL** server to process patients and event data using **PostgreSQL** and **Apollo**.

**Quicktab** │ Software Engineer Intern  *May. 2020 - Aug. 2020*

- Engineered dashboards that handle mobile orders and table assignments using **React**, **Redux**, and **Firestore**.
- Built a QR code management tool using **Node.js**, **React**, and **Firestore**, decreasing restaurant QR code onboarding and maintenance time by ∼**83%**.

## Projects

**Sapling**  *Jan. 2023 - Present*

- Built a tool to create personalized teaching resources, powered by GPT-3, for K-12 teachers in Vancouver, BC

**Noisy Discord Bot**  *Aug. 2020 - Dec. 2020*

- Built and designed an A.I. music-generating Discord bot installed in **over 330** servers with 2 developers.
- Developed a landing page with ∼**1000** monthly unique visitors using **Figma**, **CSS**, **HTML5**, and **JavaScript**.