Ricky Mao

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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, GPT-3

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 **Figma**, **TypeScript**, **React**, and **Next.js**, increasing user satisfaction by **40%**.
- Identified and resolved **over 10** critical compatibility issues between Tesla's **React** component library and **Next.js**.

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

- Developed checkout and discount **React** components with **TypeScript** 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 application 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 Engineering Intern   *May 2020 - Aug. 2020*

- Headed the scoping and development of an order management web application used by 2 restaurants.
- Engineered dashboards that handle mobile orders and table assignments using **React**, **Redux**, and **Firestore**.
- Introduced a QR code creation tool using **Node.js** and **React** decreasing restaurant onboarding time by ~**83%**.

Projects

Treeline   *Jun. 2020 - Present*

- Launched Sapling, a tool for creating personalized teaching resources for K-12 teachers using **React** and **GPT-3**.

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

- Launched and designed an A.I. music-generating Discord bot installed in **over 330** servers with 2 developers.