

Ricky Mao

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Languages: JavaScript, TypeScript, Python, CSS, HTML, Swift, GraphQL, SQL, C++

Libraries/Frameworks: React, Angular, Redux, Apollo, Node.js, Express, Feathers

Technologies: Firebase, Firestore, Docker, PostgreSQL, AWS, Figma

Education

University of Waterloo | Bachelor of Software Engineering (3.7/4.0 GPA)

Sept. 2019 - Apr. 2024

Experiences

Vretta | Software Developer Intern

Jan. 2021 - Apr. 2021

- Built dashboards to process **over 150,000** student test performances 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 calculate marker performances and developed schemas in **SQL** and 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

- Led the scoping and creation of an order management web application currently used in 2 restaurants.
- Built a QR code management tool using **Node.js**, **React**, and **Firestore**, decreasing restaurant QR code onboarding and maintenance time by **~83%**.
- Designed and built a restaurant dashboard that handles mobile orders and table assignments using **Node.js**, **React/Redux**, and **Firestore**.

Projects

Treeline

- Led a team of 3 to build a platform helping Canadian teachers share resources, ideas, and questions.
- Formalized Treeline's product vision, product strategy, and internal roadmap.
- Conducted over 20 user interviews and defined specifications for the MVP and mock-up designs.

Noisy Discord Bot

- Built and designed a music generating Discord bot installed in **over 230 servers** with 2 developers.
- Developed a landing page with **~1000 monthly unique visitors** using **CSS**, **HTML**, and **JavaScript**.

BCSS Wildcats iOS App

- Launched a smart planner used by **over 500 students** with a **4.6 rating** using **Swift** and **Firebase**.