

# Ricky Mao

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**Languages:** JavaScript, TypeScript, CSS, HTML, Python, Swift, Java, SQL

**Technologies:** React, Redux, Apollo, JWT, Node, GraphQL, Firestore, Firebase, PostgreSQL

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## Experiences

**Blueprint** | Software Developer

*Jan 2020 - present*

- Collaborated with a team of designers to create a web application that helps Waterloo Paramedic Services triage and process patients in mass casualty events.
- 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 with **JWT** authorization using **Node**, **PostgreSQL**, and **Apollo**.

**Quicktab** | Software Engineering Intern

*May 2020 - Aug 2020*

- 1 of 3 engineers in a 7 person startup focused on delivering a contactless restaurant experience.
- Led the scoping of order processing and table management features on the restaurant dashboard.
- Designed and built a restaurant dashboard that handles mobile orders and table assignment, using **Node**, **React/Redux**, and **Firebase**, to be shipped in MVP.
- Built a QR code management tool using **Node**, **React**, and **Firebase**, that optimizes onboarding and maintenance of restaurant QR codes.
- Created mockups and developed a responsive UI for the company website, using **React**.

## Projects

**BCSS Wildcats iOS App**

- Designed and developed a smart planner used by **over 500 students** with a **4.6 rating**.
- Consulted with a group of 5 teachers and over 60 students to build class and club scheduling features, using **Swift**, leveraging real-time updates with **Firebase**.

**Self-Operating Forest Fire Research Drone**

- Collaborated with a team of 5 to engineer a drone that searches for forest fires and renders a heat map around the fire using image data.
- Implemented a heat map visualizer that produces accurate visual outlines of forest fires by using **Python**, **Matplotlib**, and **Seaborn**.

**Joke Lab Android App**

- Designed and built a joke generator installed by **over 100 users** with a **4.9 rating**, using **Java**.

## Education

**University of Waterloo** | Bachelor of Software Engineering

*Sept 2019 - April 2024*