RICKY MAO

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EDUCATION

University of Waterloo   Sept. 2019 - Current
B.SE. Candidate for Bachelor of Software Engineering 2024
GPA: 3.5

SKILLS

Languages: Swift, Java, C, C++, Python, CSS, HTML
Technologies: Firebase, Cocoatouch

PROJECTS

BCSS Wildcats iOS App (Swift)   Dec. 2018 - Current
- **Singlehandedly designed and developed** a smart planner that manages the academic life of **over 500 students.**
- Enhanced productivity by creating features that managed schedules, gave access to realtime data on events, and more.
- Implemented **Firebase's Realtime Database** to allow staff to remotely update school information.
- **Collaborated and consulted** with teachers and students to deliver an extracurricular explorer feature that improved student engagement.

Self-Operating Forest Fire Research Drone (Python)   Sept. 2019 - Dec. 2019
- Teamed up with classmates to engineer a drone that searches for forest fires and renders a heat map around the fire using image data.
- Implemented the heatmap visualizer that produces accurate visual outlines of forest fires by using **Matplotlib** and **Seaborn.**

Joke Lab Android App (Java)   Dec. 2016 - Jan. 2017
- **Independently designed and built** a joke generator that displays emojis using **Core Animation** to create an experience for the user to enjoy or share.
- Installed by **over 100 users** while having a **4.9 rating** on the Google Play Store.
- Integrated non-intrusive **Admob** banner ads for monetization while maintaining minimal user interface.

EXPERIENCES

UW Blueprint, Project Developer   Jan. 2020 - Current
Waterloo, ON
- Chosen from **100+** applicants to join UW Blueprint, an organization that creates software for social good.
- Developed a paramedics application for the Grand River Hospital to help track patients during large casualty events.
- Utilized **GraphQL**, **Node.js**, and **PostgreSQL** to setup the backend service of the application.

TEDxYouth@DeerLake, Director of Technology   Sept. 2018 - June 2019
Burnaby, BC
- Programmed a fully responsive website with **CSS**, **HTML**, and **JavaScript**.
- **Coordinated and cooperated** with team members to setup a successful event that **raised over $750** in ticket sales.
- Assessed speaker applications and chose speakers that pushed our theme of Breaking Barriers.