

# Alexander Ma

## Contact Information

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**GitHub:** <https://github.com/TheZombieCloud>

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**Website:** alexma.me

**Tools & Languages:** React, Flask, HTML/CSS, Python, Java, C, C#, Firebase, SQLite, Git

**Education**      Candidate for Software Engineering (co-op), University of Waterloo, Expected May 2024

**Projects**      **Slate**      React, Flask, HTML, CSS, Firebase      Sep. 2019 - Jan. 2020

- Created a social media webapp with the ability to create schedules and see your friends' availability for the current day
- Implemented endpoints to send **POST** and **GET** requests in order to retrieve and update schedule, login, and feed information
- Implemented the frontend using **React** in order to display a schedule given schedule block information and the user feed given friend availability for the current day
- Implemented the backend using **Flask** in order to process information from the frontend and push the updates to the **Firebase Real-time database**

**Smart Pharmacy**      Java, JavaScript, Firebase      Sep. 2019 - Dec. 2019

- Developed the backend of a smart vending machine that recognizes user based on a facial profile created by their doctor and dispenses the corresponding medication
- Implemented endpoints to send **HTTP requests** in order to update prescription, user, and transactional data
- Implemented **Firebase Cloud Functions** using **JavaScript** in order to send and receive data from the vending machine and doctor's app, updating the **Firebase Real-time database** based on the transaction
- Implemented functions in **Java** that the Doctor's client calls to send data to the **Firebase Cloud Functions**

**Economy**      Python, Discord API, SQLite 3      July 2019 - Sep. 2019

- Created a chatbot that implements an economy into the popular chatting app Discord
- Integrated responses into the bot when users type specific commands using the **Discord.py** API and **Python**
- Implemented functions that perform **CRUD** operations to a local database in **SQLite 3**

**Activities**      **HackIR**      August 2018 - Dec. 2018

- Organized and lead a MLH local hack day hackathon with 6 other people
- Managed the technical side of the hackathon, with tasks including ensuring presenters didn't have any technical difficulties and judging final projects
- Garnered over **130** participants through the use of HackerEarth and other similar sites