

# MICHAEL LI

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## SKILLS

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**Languages:** HTML/CSS, JavaScript, Java, Python, Bash, SQL, C, Racket

**Technologies:** React.js, Node.js, Express, mongoDB, MySQL, Neo4j, REST api, Nginx, Git, Photoshop

## EXPERIENCE

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### Designer & Developer - Stock Alert Application

Jan 2021

*Typescript, Express.js, Python, React, MySQL*

- Designed application diagrams using flowcharts and ER diagrams.
- Automatic stock data updates to the database through execution of a python script controlled by cron.
- Constructed RESTful API endpoints to support web UI and future mobile app features.

### Hack The North - Git Voice Google Assistant VS Code Integration [Link to Devpost](#)

Jan 2021

*Typescript, Express.js, Git, Voiceflow, Ngrok*

- Developed a voice controlled git plugin for VS Code using Voiceflow's RESTful API.
- Built in Typescript using Express.js to listen for requests from the google assistant app.
- Made use of Ngrok, an HTTP tunneling service to expose the endpoints to the cloud.

### Cybersecurity Competitions - CTF Team [Link to Team](#)

Fall 2020

*Bash, Python, Javascript, PHP, Wireshark, SQL, Graphql, Postman*

- Competed in cyber security CTF competitions up to twice a week, sometimes simultaneously.
- Solved dozens of challenges using exploits such as SQL injection, Cross Site Scripting, PHP reverse shells.
- Gained familiarity with debugging tools such as system traces, Wireshark and Postman.

### Web Application Developer - Instrument Sign-out Web App

Feb 2020

*HTML, CSS, Javascript, React.js, Firebase*

- Designed and Implemented a React web app used for managing inventory of 100+ school-owned instruments.
- Implemented a barcode scanning system for instruments to insure integrity and improve user experience.
- Developed CRUD operations using Firebase for rapid prototyping. Managed and maintained host cloud server

### Java Application Developer - AI Natural Language Processing Chatbot

Fall 2018

*Java, Maven, Neo4j*

- Developed a standalone java application to process English phrases in a relational model using Neo4j.
- Used Stanford's Java libraries for tagging POS and segment sentences and created a model for processing the relationships between words.
- Designed a desktop UI using frames to allow the user to interact with the AI.

### Karate Instructor - NORTHERN KARATE SCHOOLS

Nov 2018 – Apr 2020

- Planned and directed up to 5 classes per day of up to 40 children per class with ages ranging between 3 - 18.

## Awards

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**CTFTime #8 Canadian Team 2021, #20 Canadian Team 2020**

**Canadian Computing Competition 2020 Senior Honour Roll**

## EDUCATION

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**UNIVERSITY OF WATERLOO**

*Honours Mathematics*

*Expected Graduation 2025*