

# MICHAEL HE

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🐼 [BATMOOSEMIKE](#)  
▶ [Zenith Studios Apps](#)

## EXPERIENCE

### [Hubdoc](#) - *Software Engineer*

May 2020 - September 2020

- Used **javascript** libraries including **nightmare.js** and **puppeteer.js** to develop and maintain web-scraping microservices for **5300+** clients
- Refactored legacy code, totalling **800+ lines** pushed to Github so far
- Built intranet features in **Backbone.js** and **PostgreSQL**

### [University of Waterloo Developers Club](#) - *Team Lead*

September 2019 - May 2020

- Taught dozens of beginners how to use version control technologies like **Git** and **Github** and how to program/develop an app in Java
- Led the Android team and created a music recommendation app using the **Spotify API**

## PROJECTS

### [ShotSpot](#) - *StarterHacks 2020*

January 2020

- Created web app that displays the best photography locations in any city
- **Winner** of: Most Promising, Best Domain, Best use of AWS
- Built on a **Node.js** backend that interfaces with our **web-scraping python** script, deployed with **heroku** and **AWS**

### [Digit Classifying Web App](#) - *Creator*

December 2019

- Built a web app that can classify an image input as a numerical digit
- Used the **Keras** library alongside **Tensorflow** to train a **CNN** model
- Used **Matplotlib** to display data
- Built the backend with **Flask** and the frontend with **HTML/CSS**
- Achieved **90% accuracy**, multiclass classification problem

### [Zenith Studios Android Apps](#) - *Founder/Lead Developer*

2015 - Present

- Created a mathematical model to predict box office gross using categorical statistical method, **under 10% margin of error**
- Developed a UI-modifying application for checking dead pixels, receiving a **4.5/5 rating** with **90%+ approval rating** over **5000+ downloads**
- Created soundboard application with custom **media control system**
- Developed alarm clock app that implements Android **AlarmManager**, **Fragments**, and **Intents**

## EDUCATION

### [University Of Waterloo](#) - *Bachelors of Computer Science*

Expected Graduation 2024

- Nortel Institute Scholarship & President's Scholarship of Distinction
- Cumulative Average: **92%** - Dean's Honours list
- Relevant Courses: CS 146 (Advanced CS), MATH 146 (Advanced Linear Algebra), MATH 147 (Advanced Calculus)

## SKILLS

**Languages:** Java, HTML/CSS, Python, C, Javascript, Kotlin, Scheme (Racket)

**Web Technologies:** React, Flask, Node.js, jQuery, Nightmare.js, Backbone.js

**Machine Learning:** TensorFlow, numpy, scikit-learn, Matplotlib, Keras, ImageAI

**Systems:** Linux (Ubuntu), macOS, PC

**Databases:** SQL, Firebase

**Tools:** Android Studio, Git, Bash, VSCode, Atom, Sublime, XCode

## AWARDS/CONTESTS

**Top 10** in BC for American Math Competition 10 (2017) & Canadian Open Mathematics Contest (2016 & 2017)

**4th place** at UBC Physics Olympics (2019)

Score of 30 on Canadian Computing Competition ~ **Top 300** in Canada out of **3000** participants (2018)

**Top 0.3%** score on SAT exam - **1560/1600** (2017)

**One of only 11** sophomores to receive Canadian National AP Scholar Award **out of 30,000** Canadian AP students (2017)

Moscrop Secondary French Immersion **Valedictorian** (2019)

**One of 10** recipients of the TELUS Scholarship (2019)