

MICHAEL HE

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🐙 [GitHub](#)

📱 [Zenith Studios Apps](#)

EXPERIENCE

[Hubdoc \(Division of Xero\)](#) - *Software Developer*

May 2020 - September 2020

- Developed and maintained web-scraping microservices for **100 000+** clients using **JavaScript**, **Nightmare.js**, **Puppeteer.js**, and **Node.js**, improving document-fetching success rate by up to **80%** through refactoring legacy code and handling bot detection
- Implemented intranet features using **Handlebars.js**, **Backbone.js** and **PostgreSQL** to provide developers more control over **AWS ECS** instances, and wrote unit tests for these features using **Chai** and **Mocha**

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

September 2019 - May 2020

- Taught dozens of club members 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

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

March 2020

- Built a web app that can classify an image input as a clothing category
- 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

[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**

[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: **92.5%** - Dean's Honours list
- Relevant Courses: CS 146 (Advanced CS), CS 246e (Enriched OOP), CS 241e (Enriched Sequential Programs), STAT 231 (Statistics)

SKILLS

Languages: Java, HTML/CSS, Python, C, Javascript, Kotlin, R, Scheme(Racket), SQL, Scala, C++

Technologies: React, Flask, Node.js, jQuery, Nightmare.js, Backbone.js, Handlebars.js

Machine Learning: TensorFlow, scikit-learn, Matplotlib, Keras

Systems: Linux (Ubuntu), macOS, PC

Databases: PostgreSQL, Firebase

Tools: Android Studio, Git, Bash, VSCode, Vim, AWS, XCode, Jira, Agile/Scrum, Confluence, IDEA

ACHIEVEMENTS

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)

INTERESTS/HOBBIES

[Digital art](#), Photography, Dragonboating