

YiFei Tang

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🎓 Education

University of Toronto, St. George Campus

BASc Computer Engineering – GPA: 3.80/4 – Dean's Honour List

Toronto, ON

2017 – 2021

Activities: Autonomous Rover Developer, Director - UTEK Coding Competition, VP - Engineers Without Borders

🔧 Experience

Amazon Web Services

Vancouver, BC

Software Development Engineer Intern

May 2020 – Aug 2020

- **Amazon MQ Team** - designed the architecture and functionality of a tool to reduce operator SSH usage
- Deployed a **Python** package, integrated with **AWS** services including **Cloudwatch**, **RDS**, **S3**, **CloudFormation**
- Wrote unit and integration tests, demoed product to the team and contributed to the team's wiki

National University of Singapore

Singapore

Machine Learning Research Intern

May 2019 – July 2019

- Developed an application with a **PyQt GUI** to classify medication from live webcam video
- Used **OpenCV** to identify pills from a screen and **K-Means** clustering with **Scikit-Learn** to extract HSV value
- Queried a **MySQL** database to insert, classify and remove pills and their corresponding information
- Additionally trained a CNN built with **TensorFlow** to recognize 6 pills, achieving **97% accuracy** on test set

🔬 Projects

CineYet - Android App

Java, Firebase, Android Studio

- Built a social media app for cinephiles, allowing users to review movies and recommend them to friends
- **NoSQL** database and authentication hosted on **Firebase**, movie data retrieved from **IMDB API**, user interface built with **Android Studio**

Onion GIS Map Application

C++, GTK, Libcurl, Git

- Implemented **Dijkstra's** algorithm to find path between intersections, optimized run time by 50%
- Displayed live weather data using Dark Sky API, retrieving information with Libcurl **web scraper**

🏆 Hackathons

Finalist and Best Fashion Hack - UofTHacks 2020

Python, AWS, Heroku, MySQL

- Created a website customizing environmentally friendly outfits for a user based on photos of their clothing
- Deployed a Flask server on **Heroku** to receive user input, applied Google's **Cloud Vision API** to analyze the data, retrieved outfit combinations from a **MySQL** database hosted on **AWS**

2nd Place - RBC AmpHacks 2019

Python, jQuery, Flask, AJAX, Bootstrap

- Built a platform to plan Income Share Agreements - a theoretical alternative to student loans offered by RBC
- Used **jQuery** and **AJAX** to send user profile information to the Flask server, analyzing student data with a KNN algorithm

Winner - Hack The North 2019 - TD API Challenge

Python, Flask, Azure OCR, MySQL

- Built an app providing students with financial and environmental advice about their grocery decisions
- Used **Azure** OCR to analyze receipt data, **Flask** build the **REST API**, **MySQL** to store user data

⚙️ Skills

Languages: Python, Java, C, C++, SQL, HTML, CSS, JavaScript, MATLAB

Technologies: AWS, Firebase, Android SDK, Flask, ReactJS, Qt, TensorFlow, OpenCV, Numpy, Matplotlib