

# TIANYI ZHANG

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## WORKING EXPERIENCE

### Software Developer

#### IBM Canada

May 2019 - Present    Markham, Ontario, Canada

- Revamped tools to analyze DB2 application snapshots, achieving **concurrent processing** and reduced processing time from **3 mins** to **2 secs** using **Golang**
- Delivered a web-based tool for DB2 diagnostic logs analysis using **Python, Nginx, and Docker**, automating **3** workloads and significantly enhanced productivity for the team
- Developed features for an automation framework based on **Slack chatbot** that integrates with **Chef** for infrastructure automation, providing **real-time interactivity** and simplicity for the testing workflows

### Teaching Assistance

#### Department of Computing and Software, McMaster University

Sep 2018 - May 2019    Hamilton, Ontario, Canada

- Led weekly tutorials and provided academic assistance to **100+** students in two core CS courses: Intro to Computational Thinking (**Haskell**), Intro to programming (**Python**)
- Significantly improved making efficiency by automating weekly grading tasks for the D2L system using **Python web automation** and **data scraping**

### Full Stack Developer

#### Royal Bank of Canada

May 2018 - Sep 2018    Toronto, Ontario, Canada

- Developed an AI-powered business intelligence system for advisors to better engage with clients using **Python Flask** and **Angular**
- Integrated **business data** from various sources and generated daily industry reports by automating the workflow of **5** different tasks
- Designed and implemented scalable **MS SQL** database model and multiple **REST API** endpoints
- Implemented caching layer to decrease network calls and improved runtime performance by **40%**

## SKILLS

Flask   Node.js   HTML   CSS   Angular   React  
RestAPI   gRPC   SQL   MongoDB   Agile Development  
Docker   Kubernetes   Jenkins   AWS   Git   Linux

## PROGRAMMING LANGUAGES

Python, Go   ●●●●●  
Javascript   ●●●●●  
Java, Bash   ●●●●●

## EDUCATION

### B.A.Sc Computer Science Co-op

#### McMaster University

- Expected graduation date: **Apr 2022**
- Dean's Honour List
- Cumulative GPA 3.9 / 4.0

## PROJECTS

### SafeBnB (Hack the North 2018)

- A web app that recommends Airbnb listings in Toronto based on how safe the area is
- Analyzed crimes and Airbnb datasets in **Python** to derive algorithms for calculating safety index
- Rapid prototyping with **Angular** and **Firebase**

### Talky (NWHacks 2018)

**1st popular vote out of 144 teams**  
**Best Use of Microsoft Technology**

- An IOS app that provides real-time feedback on users' public speech
- Analyzed properties of audio files using **Python** and integrated the app with **Flask backend**
- Helped design a chat-like interface with **Swift**

### DineSafe - Chicago

- A refined **recommendation service** for restaurants in Chicago based on **Java Spring Boot** and **Mysql** database
- Built an efficient workload to process massive open government datasets (**>500K entries**) and orchestrated the entire application structure

## CERTIFICATIONS

- AWS Certified Solutions Architect - Associate

## EXTRACURRICULAR

### The Forge (Innovation Factory)

- Member of Hamilton's **startup incubator**
- Joined a startup business which received tremendous guidance and mentorship