TIANYI ZHANG

@ tiaven1104@gmail.com   📞 647-936-2123   🔗 https://tywinzhang.com
in https://www.linkedin.com/in/tywinzhang/   ⭘ https://github.com/tywin1104

WORKING EXPERIENCE

Computer Science Teaching Assistance
Department of Computing and Software, McMaster University

📅 Sep 2018 – Present   📍 Hamilton, Ontario, Canada

- Held tutorials and offices hours to teach fundamental concepts such as data structures, recursion in a first-year functional programming course based on Haskell
- Significantly improved marking efficiency by writing auto grading script for the D2L system using **web automation** and **data scraping**.

Full Stack Developer
Royal Bank of Canada

📅 May 2018 - Sep 2018   📍 Toronto, Ontario, Canada

- Integrated internal and external data to develop multiple **APIs** as microservices
- Designed and implemented scalable MS SQL **database model** and Flask **backend architecture**
- Developed **functional responsive front end page** with Angular
- Implemented caching layer to decrease network calls and improve runtime performance by **40%**
- Worked in an **agile** environment and presented technical topics to project manager and manage the **low-level planning** of work

Application Developer
RedReach

📅 Nov 2017 - May 2018   📍 Hamilton, Ontario, Canada

- Built **prototype** and designed **user flow** for our startup project that focused on local youth employment
- Developed exceptional **communication** and **analytical skills** while conducting user feedback interviews and doing **business analysis**

SKILLS

`Flask` `Node.js` `HTML` `CSS` `Angular` `RestAPI` `MySql`
`MongoDB` `Bootstrap` `Material Design`
`Selenium` `Firebase` `Git` `Linux` `Agile Development`

PROGRAMMING LANGUAGES

Python   ●●●●●

Javascript   ●●●●○

Java, C, Bash   ●●●○○

EDUCATION

Computer Science Co-op
McMaster University

- Expected graduation date : **Apr 2021**
- Dean's Honour List

PROJECTS

SafeBnB (Hack the North 2018)

- Developed a web app that recommends Airbnb listings in Toronto based on how safe the area is
- Analyzed crimes and Airbnb datasets 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

- Built an iOS app that coached public speaking using voice analysis
- Integrated **flask backend** to analyze audio for words per minute, volume, pausing and clarity
- Helped to design a chat-like interface that recorded speeches and gave constructive feedback

Microcosm (Hack.init() 2017)

- An experimental project developed during China's premier youth hackathon.
- Built an interactive learning tool based on Hololens **mixed reality** implemented by Unity and HoloToolkit API.

EXTRACURRICULAR

The Forge (Innovation Factory))

- Member of Hamilton's **startup incubator** and McMaster's entrepreneurship initiative
- Joined the startup business which received tremendous guidance and mentorship
- Actively attend innovation programs and entrepreneurship training