

# DELMAR ZHAO

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## SKILLS

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**Languages:** Python, Ruby, C, Java, Bash, Javascript, HTML, CSS

**Tools and Frameworks:** Git, SQL, Android Studio, Node, Express, Ruby on Rails, React, Linux

## EDUCATION

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**University of Toronto**

Toronto, Ontario

Bachelor of Science, Computer Science *GPA: 3.94*

Sep 2017 - Nov 2021

## EXPERIENCE

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**Momentive (formerly SurveyMonkey)**

Ottawa, ON

*Software Engineer*

2021

- Improved observability of Rails application by implementing Sentry logging, enabling automatic forwarding of log data to Splunk Cloud, and configuring automated Slack and PagerDuty alerts based on log events

*Software Engineering Intern*

2020

- Developed features for administrative interface using **Ruby on Rails** and **HAML** to automate and expedite common customer support requests, fulfilling the top five feature requests from the customer success team
- Implemented **cron** jobs to automatically delete data for GDPR compliance using **Sidekiq** workers
- Optimized **ActiveRecord** ORM and **PostgreSQL** queries, improving runtime complexity.
- Used **RSpec** to write unit and integration tests, achieving over 95% code coverage on new features.

**Fortran Traffic Systems Limited**

Toronto, ON

*Full Stack Developer Intern*

2019

- Led development of cross-platform mobile app using **Dart** and **Flutter** to display live map navigation and real-time traffic signal phase and timing information to users, delivering the MVP within two months
- Implemented email and Google account based user authentication using Google **Firebase**, and allowed administrators to create priority accounts with additional privileges for transit and emergency vehicles
- Created **REST API** endpoints with **Nodejs** and **Express** for serving intersection geometry, signal phase, and timing information based on GPS protocol buffer stream
- Optimized REST API responses using gzip encoding, reducing mobile app data usage by 88% per nearby intersection

## PROJECTS

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**Sign Language Interpreter**

2018

- Implemented sign language interpreter using **Python**, **Flask**, and the IBM Watson Machine Learning API
- Won 1st place at Hack the North 2018 for best use of the IBM Watson Machine Learning API

**GameCentre**

2018

- Designed mobile game hub with **Java** and **XML** using the **MVC** design pattern, to allow users to compare scores with others
- Built several mobile games for the hub in **Android Studio**, and used **JUnit** to automate testing for controller classes

**VoiceKBM**

2018

- Transcribed voice input using the Google Cloud Speech API and parsed them into for voice commands for disabled/impaired computer users
- Programmatically controlled the mouse and keyboard using the **Python** PyAutoGUI module, including support for mouse movement, single/double clicks, scrolling, typing phrases, and keyboard shortcuts

## AWARDS

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**Koch Scholarship**

*Fred and Mary Koch Foundation*

2018 - 2020

Awarded annually based on outstanding GPA, extracurricular activities, community service, and character