

# Ray Liu

SOFTWARE ENGINEERING UNDERGRADUATE

Toronto, Canada

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## Technical Skills

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Language Python · Java · C/C++ · Javascript · Ruby · HTML/CSS

Frameworks Ruby on Rails · Express.js · Tensorflow · Django

Tools and Others Git · GraphQL · Node.js · jquery · AWS · PostgreSQL · SQLite

## Education

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### McMaster University

*Hamilton, ON, Canada*

B.ENG IN SOFTWARE ENGINEERING

*Sept 2016 - April 2020*

- GPA: 3.75 | Dean's honour list
- Relevant Courses: Data Structures and Algorithms, Software Design, Linear Algebra, Discrete Mathematics I/II
- Machine Learning Course Certificate awarded by Stanford University

## Experience

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### FamilyAsyst

*Tainan, Taiwan*

SOFTWARE ENGINEER INTERN

*May 2018 - Oct 2018*

- Designed and implemented a user interface for the AERMOD software (By EPA) using **Python Tkinter** that allows users to simulate dispersion of air pollutant emissions from stationary industrial sources with Google Earth
- Implemented function that allows users to input or use data files to specify different sources, terrain and meteorology information for dispersion simulations
- Designed and implemented test plans and test cases for the user interface

## Projects

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### HeyTensor

[HTTP://HEYTENSOR.HEROKUAPP.COM/](http://heytensor.herokuapp.com/)

*2019*

- Developed a **Deep Learning** web application that provides users a chatbot for entertainment purposes
- Trained model based on massive data from online forum (Reddit) comments using **Tensorflow** and developed application using **Node.js** with **socket.io**
- Developed with: **Python, SQLite, Tensorflow, Node.js, Express.js, socket.io, jquery**

### QuickShop

[HTTPS://GITHUB.COM/CHERAYLIU/QUICKSHOP](https://github.com/cherayliu/quickshop)

*2019*

- Developed **GraphQL API** using **Ruby on Rails** that allows users to access and manipulate product data through queries and mutations to perform actions on product inventory
- Developed with: **Ruby, Ruby On Rails, GraphQL, PostgreSQL**

### TrawlExpert

[TRAWL.SCHANKULA.CA/TRAWL/](http://trawl.schankula.ca/trawl/)

*2018*

- Developed a **Java** web application that provides research tools such as range searches, cluster map, plotter map, heat map and histogram to assist the analysis of the water ecosystems
- Developed with: **Java, Javascript, Apache Tomcat, Google Maps API**

### Greco (RU Hacks)

[HTTP://GRECO.TECH/](http://greco.tech/)

*2018*

- Developed a web application that allows user to rate location and create a visual 'cleanliness' overlay of their local surroundings by using **Python, Django, SQLite and Google Maps API**
- Developed with: **Python, Django, Javascript, Google Maps API**