

# Qiwei Chen

Email: qiwei.chen@mail.utoronto.ca

Phone: (647) 860 2918

## EDUCATION

09/2019 - present University of Toronto, St George GPA: 3.9/4.0

### Master of Information, Human-centered Data Science

Relevant courses: Programming for Data Science, Data Analytics, Creative Application for Mobile devices, Social Media Data Analysis, Introduction to Machine learning, Data Modeling and Database, Experimental Design for Data Science

09/2014 - 08/2018 University at Buffalo, the State University of New York  
Bachelor of Science, Geographical Information Science & Minor in Japanese

## TECHNICAL PROFICIENCIES

**Programming Skills:** SQL(Database), R, Python, tensorflow, pytorch, Scikit-Learn, pandas, Java, Android Studio, React, Bootstrap, Tableau, Bash, Git

**Analytical Skills:** Supervised and Unsupervised ML, Exploratory Data Analysis, Data Visualization, A/B testing, Regression Discontinuity Design

## PROFESSIONAL EXPERIENCE

District LongHua Smart City Geographic Information Cloud Platform Shenzhen, China  
Project management Aug/2018 - May/2019

Objective: Build a geographic Information system to easily access and manipulate given raw data

- Coordinated between first party and executing departments, participated in presentation of phased objectives and modification based on first party requirement.
- Performed data pre-processing on 100 thousand raw population data aim to join it with geographical location based on national issued standard and stored it in the database. Increased data processing time by 30%.
- Colaborated with software team to develop search engine for the cloud platform by implementing Apache Lucene Chinese Character Analyzer.
- Achieved acceptance rating of 88% with detailed project documentations, reports and presentation enabled quick project payment.

Tools: SQL, Arc Map (Cadastral map, Python, Java, Lucene)

## SELECTED PROJECTS

Healthy Partner - Physical Fitness Social APP Jan/2020-Apr/2020

- Proposed, designed and excuted agile development method on Android application aimed to provide matching service for users desired to find compatible partner for physical exercise.
- Implemented user authentication, database query and information storage with Google Firebase. Researched and designed weighted matching algorithm for user matching and set up chat function for users with services from Scaledrone java API client.
- Presented and tested the final functionalities of the app with a classroom size audience.

Tools: Andriod Studio, Java, Google Firebase

Analysis of Academic Probation impact on University Students with RDD Mar/2020-Apr/2020

- Implemented Regression Discontinuity Design on the target dataset, followed arbitrary academic probation cutoff based on students' GPA to investigate the impact of Academic probation on university students.
- Performed data cleaning and EDA on the dataset of 40k+ university students with 17 variables.
- Designed and ran linear regression model on selected population with an average RMSE around 0.7 to investigate the differences and causality.

Tools: R (rdrobust, caret, tidyverse, dplyr)

Text and Sentiment Analysis with covid-19 Twitter Data Jan/2020-Mar/2020

- Designed and implemented a service to collect and clean public tweets about covid-19 using Twitter API; Extracted keywords using text mining techniques like tokenization and created word cloud for visualization.
- Constructed frequency-based time-series for each keyword and applied statistical anomaly detection to detect the trending keywords over time. Applied Hierarchical Clustering to group similar keywords together to identify the trending events.

- Applied sentiment analysis to score theon the positivity of a word, visualized sentiment trends in different countries.

Tools: R (twitterR, RJSONIO, stringr, RCurl, ROAuth, rtweet, ggplot2, dplyr, maps, wordcloud)