

Zihao (Roy) Yang

Honours Geomatics, CS Minor
University of Waterloo
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Summary of Qualifications

- Programming skills: C++, Python, Spark, Objective-C, SQL, Javascript, VBA
- GIS background: ArcGIS, QGIS, PostgreSQL and PostGIS
- Remote sensing background: Google Earth Engine, ENVI, PCI Geomatica, SNAP
- Demonstrates strong initiative and organization skills
- Exceptional interpersonal skills, easy-going team player, responsible person, share thoughts and show respect with a positive attitude
- Adept at time-management, always aim to make the most prudent decision
- Fluent in English and a native Chinese Mandarin speaker
- Canadian citizenship with G-Class Ontario driver's license with a personal vehicle

Education

University of Waterloo

September 2019- Present

Candidate for Master of Science in Geography

University of Waterloo

September 2015 – April 2019

Bachelor's in Honours Geomatics, Faculty of Environment, Computer Science Minor

Work Experience

Machine Learning Engineer (Intern)

Innovusion (Los Altos, California, USA)

August – October, 2019

- Assisted in LiDAR point cloud data pre-processing and data conversion.
- Assisted in training of KITTI and company dataset with PointRCNN and obtained considerable results.

iOS Developer (Intern)

Aurora Technology Development (Markham)

May – August 2016

- Developed AusoShare 2.0 iOS application independently using Objective-C.
- Assisted in development and maintenance of a food delivery application and a real estate application using MapKit.
- Assisted in conversion of applications from Android to iOS.
- Achievement: Major improvement in objected-oriented programming as well as the communication between the front and back end of a mobile application.

Research Experience

Annual Average Daily Traffic (AADT) Estimation

May – August 2018

- Major achievements: Independently implemented a Python script that utilizes the Network Analyst Tool in ArcGIS to solve and record for over 400,000 routes on 20

computers overnight. Script will also be reusable for other datasets with corresponding modifications until functionality officially implemented.

- Produced estimation for the AADT in Toronto using the commute flow data provided by PiinPoint and the demographic data provided by StatCan
- Modelled simulation of real time traffic data in ArcMap using Network Analyst Tool.
- Created SVM and ANN models to predict AADT in comparison with the results from the Network Analyst Tool.

Satellite Imagery Analysis

January – April 2019

- Independently processed Landsat images over 25 years using Javascript in Google Earth Engine to monitor landscape and vegetation changes.
- Operations include cloud masking, vegetation index calculation, image band manipulation and time-series charting.
- Converted Landsat images to vector data in ArcMap to perform Ordinary Least Squares analysis.

Relative Awards

Certificate of Excellence in GIS

April 2019

Issued by the University of Waterloo

Canadian Computing Competition 2012

February 2012

Achieved a grade of 80% (Junior level)