

TOM ZHANG

1786 Seymour Crescent, London, Ontario | Mobile: 226-600-4912 | tom.zhang989@gmail.com

EXPERIENCE

JANA CORPORATION

GIS ANALYST

Aurora, ON

Jan. 2019 - Apr. 2019

- QAQCed and verified 500 km of pipeline data for risk analysis by joining relevant documents to **Access Database** tables
- Automated the correction of 200-meter offset data errors of pipeline fittings in **QGIS** using **python**
- Provided proximity analysis of Ontario gas pipeline infrastructure risk using **QGIS**

AGRICULTURE AND AGRIFOOD CANADA

AGRICULTURE ANALYST

Regina, SK

May. 2018 - Aug. 2018

- Reduced 5 hours of biologist work to 10 minutes by automating the creation of 32 climate maps with **ArcPy**
- Provided drought data support in **ESRI ArcPro** to prairie farmers for relief payment applications

Environment and Climate Change Canada

Air Quality Data Analyst

Ottawa, ON

Sept. 2017 - Dec. 2017

- Created maps and time series graphs of near road pollution data with **R**
- Verified **MySQL** pollution data using SQL in Matlab and python scripts
- Ground truthed Esri Geodatabase data using **ArcPro** to ensure accurate land use calculations
- Classified pollution severity of 19 study areas by population, landuse and pollution within 400m using **R**
- Trained colleagues in python script usage to enable smooth project handover

Environment and Climate Change Canada

Wildlife Data Analyst

Sackville, NB

Jan. 2017 - Apr. 2017

- Identified percentage of protected wildlife area using **ArcMap** areal analysis to inform work priority
- Automated data loading of CSV files into Mysql Db using **Safe Software FME**, saving biologist worktime
- Created composite area image with aerial photos using **Arc Map Mosaic** to provide updated overview

PROJECTS

SolarHAT | QGIS, NodeJS, Postgresql

Dec 2021

- Mapped solar energy generation potential across Canada with Node Application using: QGIS, Leaflet.js, Express.js and PostGreSql
- Provided additional statistical analysis and visualization through Bootstrap
- Presents the cost savings opportunity of installing solar panels through Chart.JS

EDUCATION

University of Waterloo

Bachelor of Environmental Studies in Geomatics, Minor in Computer Science

Waterloo, ON

Aug. 2015 - May 2020

Lighthouse Labs

Full Stack development Bootcamp

Toronto, ON

Sept - Dec 2021

Google Cloud Architect Certification

2022

Azure Fundamentals Certification

2022

TECHNICAL SKILLS

Languages: .NET, Java, Python, SQL (Postgres, Oracle, Mysql), JavaScript, HTML/CSS, R

Frameworks: React, Spring, Node.js, Flask

Developer Tools: QGIS, ArcMap, ArcPro, RStudio, Anaconda

Libraries: pandas, NumPy, Matplotlib, Chai, Mocha