

# ZIJIAN JIANG

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## Website, Portfolio, Profiles

- <https://www.linkedin.com/in/zijianjiang9704/>
- <https://github.com/z95jiang>

## Professional Summary

Qualified Geomatics graduate and emerging professional devoted to building industry career and working with top-notch professionals. Offers broad base of experience in technical operations, problem-solving and cooperation with professional teams. Resolves problems quickly with high levels of critical thinking and technical know-how. Devoted troubleshooter with deep understanding of GIS Software and Database Management System (DBMS). Computer-savvy GIS professional with technical expertise in equipment and databases. Knowledgeable about compiling, organizing and reporting on geospatial data for diverse applications. Demonstrated skill in integrated analyses and cartography.

## Skills

- GIS Analysis
- Digitizing skills
- 3D modelling
- Python, SQL, R, VBA
- Database compiling
- Flexible & Adaptable
- Collaboration
- Computer proficiency
- Self-motivated professional
- Ontario drone pilot certificate
- Ontario G class driver's license
- English for Multilingual Speakers

## Work History

**Graduate Research Assistant**, 09/2020 to 01/2021

**Geospatial Sensing and Data Intelligence Lab** – Waterloo, ON

- Completed administrative and research duties per professor request.
- Researched information regarding semantic remote sensing image segmentation to assist professors with academic pursuits.
- Gathered, reviewed, and summarized literature from scientific journals and produced graphs and other scientific calculations using MS Excel.
- Worked on building Waterloo Building Database (WBD) project, edited and created approximately 60 GB of high-resolution remote sensing image database using ArcGIS Pro
- Maintained WBD using python and SQL.

**GIS Analyst Intern**, 05/2017 to 08/2017

**Beijing Attraction Visual Tech CO. LTD** – Beijing

- Worked flexible hours; night, weekend, and holiday shifts.

- Assisted in preparation of Traffic Staging and Conceptual Plans using GIS software such as Esri ArcGIS and QGIS.
- Worked alongside team of geospatial professionals to optimize advertising board placement of Beijing subway network.
- Assist with compiling reports and submissions of field work documentation as part of personal assistant.

## Education

**Master of Environmental Studies:** Geography (Human), 09/2021

**University of Waterloo** - Waterloo, ON

- Milestones: Achieved 90% on Master's Research Paper.
- Member of Lab Assistant at Geospatial Sensing and Data Intelligence Lab

**Bachelor of Environmental Studies:** Geomatics, 08/2020

**University of Waterloo** - Waterloo, ON

- Milestones: Certificate in English for Multilingual Speakers; Workplace Hazardous Materials Information System
- Relevant Coursework Completed: GIS, Remote Sensing, Algorithm & Data structure, Data Analysis
- Minor in Computer Science
- Elected Captain of Intramural Basketball Team

## Projects

**Automatic building footprint extraction using deep learning**, 04/2021 to 09/2021

- Created and performed quality control & data deliverable of open-source Waterloo Building Dataset (WBD) with image and label from high-resolution remote sensing images
- Trained six fully connected neural networks with WBD with applied state-of-art computer vision techniques
- Predicted building footprint using unlabeled RS images using the trained DL models
- Conducted quantitative and qualitative analysis to the output results

**Environmental evaluation of Chinese Three-North Shelter Programme**, 01/2020 to 05/2020

- Analyzed the environmental impact and vegetation change in the Chinese Three-North region from 2000-2019 using high-resolution satellite images

**Flood Risk Analysis at KW Region**, 04/2019 to 08/2019

- Studied the potential and the applications of LiDAR-derived DEM in flood studies
- Estimated catchment capacity of the water inlet in KW region
- Produced flooding risk map and suggested new drainage infrastructure location