

# JIAAO GUO

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## EXPERIENCE

### **Project Leader; Research Assistant**, QUEST

*January 2019 – Current*

- Developed / implement mapping “toolkit” for the Accelerating Implementation of Renewable Energy (AI-RE) project in Canmore, Alberta, funded by Quality Urban Energy Systems of tomorrow (QUEST)

### **GIS Analyst**, Family Medicine at Cumming School of Medicine, University of Calgary

*December 2018 – Current*

- Developed and maintain a map of influenza outbreak in Alberta, Canada

### **GIS Consultant**, Sustainable Calgary

*May 2018 – May 2019*

- Developed population density maps for *Healthy Places: Designing for Health in Alberta*
- Provided geocoding of collision sites for Montreal, Canada (on-going study)

## EDUCATION

### **Master of Geographic Information System**, University of Calgary

*September 2017 – August 2019*

- Course taken include advanced GIS, GIS-based Python programming, urban GIS, remote sensing, spatial-statistics. GPA: 3.91 out of 4.0
- Graduation Thesis: “Mapping Renewable Energy Capacity in Canmore, Alberta: Implementing a Standardized Mapping Framework and GIS-based MCDA”

### **BSc, Honor Specialization in Environmental Science**, University of Western Ontario

*September 2013 – April 2017*

- Course taken include GIS, decision making in GIS, cartography, and remote sensing
- Thesis: “Estimating the Complete Surface Temperature of the Greater Toronto Area” using MODIS thermal bands and Environment Canada’s Surface Prediction System

## SKILLS

**GIS:** ESRI’s ArcGIS Desktop, ArcGIS Online, and ArcGIS Pro; QGIS

**Programming language:** Python

**Remote sensing:** PCI Geomatica, ENVI, eCognition Developer, LASTool, Google Earth Engine API

**Database management:** SQL

**Statistical tool:** R, MATLAB

**Microsoft Office** (Word, Publisher, Excel, Outlook, Power Point)

**Hardware:** Experience in handling ASD FieldSpec spectrometer, and Etrex Vista GPS receiver

## PUBLICATION

Guo, J., & Fast, V. (2019). Growing Up, Growing Out: Comparing Spatial Patterns Of Urban Populations in Canada. *Geomatica*, 73(2): 45-61. [doi.org/10.1139/geomat-2019-0011](https://doi.org/10.1139/geomat-2019-0011)

Guo, J., & Fast, V. (2019). Spatial Insights on Urban Density: A Case Study of Calgary. Proceedings of the 7th Conference on Spatial Knowledge and Information Canada, 7(3), 2. <http://ceur-ws.org/Vol-2323/>

Guo, J., Fast, V., Teri, P., & Calvert, K. (2020) Integrating Land-use and Energy Planning Decisions: A Technical Mapping Guide for Small Municipalities. *ISPRS International Journal of Geo-Information*. Under review: manuscript ID: ijgi-753193