

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/Web language: Python ([sample work](#)), JavaScript, HTML, Markdown

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, Teri P, Calvert K. (2020) Integrating Land-Use and Renewable Energy Planning Decisions: A Technical Mapping Guide for Local Government. *ISPRS International Journal of Geo-Information*; 9(5):324. <https://doi.org/10.3390/ijgi9050324>

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

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/>

EXTRACURRICULAR ACTIVITIES

Weekly Volunteer, Wing Kei Senior Care Centre

2018 October – Current

- Help the elderly residents as part of the Recreation Team (over 300 hours cumulatively)

Weekly Volunteer, Student Wellness Centre, University of Calgary

2018 September – 2019 April

- Help to foster and student participation of *Nomads* program (International grad students peer support)

Reception Volunteer, International Student Services, University of Calgary

2018 September – 2019 April

- Guide and provide resources to international students weekly

GROUP

Canadian Institute of Geomatics (CIG)

2019 December – current

CONFERENCES

56th Annual Geography Department Conference (University of Calgary)

2019 March – Calgary, AB

- Comparative urban density: analyzing Calgary's 14 new communities

7th Conference on Spatial Knowledge and Information Canada

2019 February – Banff, AB

- Title: Spatial Insights on Urban Density: A Case Study of Calgary
- Best Presentation Award at Spatial Knowledge and Information (SKI) Canada

Canadian Association of Geographers, Ontario Divisions (CAGONT) 2019

2019 November – Guelph, ON

- Title: Mapping Renewable Energy Opportunities for a Small Municipality: A Case Study in Canmore, AB

Canada Energy Regulator: GIS Day Conference, Calgary (2019)

2019 November – Calgary, AB

- Title: Land-based Renewable Energy Mapping: A Local Planning Guide for Canmore, Alberta