

# Matthew Brown

mattbrownngis@gmail.com ■ Hamilton, Ontario

■ Website: <https://matthewbrown-gis.github.io/>

## EDUCATION

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### McMaster University, Hamilton, ON

*Master of Science, Thesis, Geography / Graduated April 2020*

- Analyzed and processed a year's worth of GPS-tracked cycling data from SoBi Hamilton to assess popular route characteristics using ArcGIS, Python and R
- 2018-19 recipient of Esri Canada Center of Excellence Student of the Year Award
- Placed 2<sup>nd</sup> (2019) and 3<sup>rd</sup> (2018) in the Esri Canada App Challenge

### McMaster University, Hamilton, ON

*Bachelor of Science (Honours), Environmental Science (Minor in GIS) / Graduated June 2017*

- Achieved a 3.7/4.0 GPA in final two academic years, Dean's Honour List: 2015, 2016, 2017
- Active member of Esri Canada Centre of Excellence Student Associates program, Geographers Without Borders, and McMaster Guitar Club

### Esri Training

- ArcGIS Pro: Essential Workflows **2019**
- Creating Python Scripts for ArcGIS **2018**
- Introduction to JavaScript **2017**

## WORK EXPERIENCE

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### McMaster University, Hamilton, ON

*Research Assistant – GIS/Database Specialist / July 2020 – Present*

- Analyzing GPS data collected from a custom Android smartwatch application for technology validation using Python-based GIS tools and data management techniques
- Working closely with team members to determine ideal methodology to meet project protocols
- Creating and managing databases to store information collected from research participants
- Writing comprehensive technical documentation and reports for research projects

*Teaching Assistant / July 2016 – April 2019*

- Led interactive lab sessions for GIS courses taken by hundreds of undergraduate students
- Guided students through assignments and explained how to effectively utilize the software

*Research Assistant / May 2017 – October 2017*

- Updated and maintained a complex street network for Hamilton, Ontario and Calgary, Alberta
- Assisted in the creation of tools to assess walkability and coordinating research tasks

## PUBLICATIONS

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Scott, D. M., Lu, W., & Brown, M. J. (2021). Route choice of bike share users: Leveraging GPS data to derive choice sets. *Journal of Transport Geography*, 90, 102903.

<https://doi.org/10.1016/j.jtrangeo.2020.102903>

## SKILLS

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- ArcGIS Online, ArcGIS Pro, Cartography, Esri ArcGIS Desktop 10.x, Microsoft Office (Word, PowerPoint, Excel), Python, R for data analysis, GPS knowledge, SAS, SQL for DBMS