

Matthew Brown

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Website: <https://mattbrown-gis.github.io/>

EDUCATION

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 2nd (2019) and 3rd (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

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

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

- 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