

HANNAH KER

hannah.ker.19@ucl.ac.uk ◇ London, United Kingdom

EDUCATION

University College London 2019-2020

MSc Candidate Spatial Data Science and Visualization

McGill University 2014-2018

BA Urban Geography (First Class Honours)

- Dean's Honour List, CGPA: 3.97/4.00
- Southeast Asia Urban Field Studies
- Vice President Academic, McGill Undergraduate Geography Society

TECHNICAL SKILLS

Data Science	Python, Java, R, STATA, SaTScan
GIS	Mapbox GL JS, Google Maps API, OpenStreetMap, QGIS, ArcMap, ENVI
Web Development	Javascript, HTML, CSS

NOTABLE RESEARCH PROJECTS

Honours Research Project: *Spatial Legibility in Montreal Through Google Street View*

I used the data from Google Street View to build an online game to survey Montreal residents about their perceptions of the city's urban form. I analyzed the results of this survey to determine factors that contribute to better recognizability of landscapes within the city. (Supervisors: Dr. Renee Sieber and Dr. Raja Sengupta) *JavaScript, HTML, CSS, ArcMap, QGIS*

Independent Research Project: *A Spatiotemporal Clustering Approach to Event Detection with Geotagged Tweets*

I analyzed spatiotemporal clustering patterns in a dataset of 60,000 geotagged Tweets to detect events occurring in the city of London. This research project was an investigation into dynamic spatiotemporal analysis in the field of GIS. (Supervisor: Dr. Renee Sieber) *SaTScan, R*

Independent Research Project: *Analysis of Montreal's Micro Urban Heat Islands*

I mapped Montreal's land surface temperature using thermal LANDSAT data and isolated micro urban heat islands within the city. I overlaid these findings with Census data to highlight populations within the city that could potentially be vulnerable to extreme heat events. (Supervisor: Dr. Margaret Kalacska) *ENVI, ArcMap*

PROFESSIONAL EXPERIENCE

Open Data Analyst - *OpenNorth* Aug 2018 - Aug 2019

- Developed online tools to improve data literacy in the Canadian Federal Government
- Worked with public officials in Ukraine to improve processes of public consultation
- Provided data management expertise for urban development projects (eg. smart city strategy, urban data hub) in ten cities across South America, Asia, and Africa

Research Assistant - *Dr. Renee Sieber, McGill University*

Jan 2019 - Sept 2019

- Conducted quantitative research to understand response to extreme weather events on social media
- Conducted a network analysis of tweets relating to an extreme weather event
- Lead a team of researchers in writing an academic paper (currently under review)

Research Assistant - *Dr. Raja Sengupta, McGill University*

Jan 2017 - Aug 2017

- Conducted research on the urban heat island effect in Montreal
- Developed a methodology to derive land surface temperature from LANDSAT satellite imagery in ENVI
- Conducted fieldwork and stored data in an ArcGIS geodatabase to create a detailed land use/land cover map for McGill Campus

COMMUNITY INVOLVEMENT

Volunteer Geography Instructor - *Shree Mangal Dvip Boarding School*

June 2018

- Developed geography lesson plans and activities for students in grades 5-8 in Kathmandu, Nepal
- Delivered lessons and led classes for students

Co-Founder and President - *Open Mapping Group of McGill*

Sept 2017 - May 2018

- Co-founded and led a student-run group that aims to connect students with open geospatial data and technologies, and build community resilience through both local and remote humanitarian mapping efforts

Team Captain - *McGill University Sailing Team*

Nov 2016 - Nov 2017

- Member of the executive committee of a competitive, student-run sports team of 30 athletes
- Managed and hired team coaches
- Maintained the team's fleet of twelve (12) sailboats

HONOURS AND AWARDS

London Goodenough Association of Canada Scholarship

2019

Awarded for academic excellence, to support graduate studies in London

Canadian Association of Geographers Undergraduate Award

2018

Honoured as one of Canada's top graduates of an Undergraduate Geography program

ESRI Canada GIS Scholarship

2018

Awarded for excellence in the field of GIS

Robert Bruce Scholarship

2017

Awarded by the McGill Faculty of Arts for a high level of academic achievement

JW McConnell Scholarship

2014

Awarded by McGill University for high academic achievement and community leadership