

# HANNAH KER

## Technical Project Lead

📍 Vancouver, Canada

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## EXPERIENCE

### Technical Project Lead

#### Plotly

📅 Nov 2022 – Ongoing

📍 Vancouver, CA

- Leading the full-stack development of software to help clients interact with large datasets on the web.
- Managing project delivery across teams of 3+ junior developers and ensuring success in achieving a client's goals within project budget and timeline.

### Solutions Architect

#### Plotly

📅 Nov 2021 – Nov 2022

📍 Montreal, CA

- Developed data applications using the Dash framework and Python ecosystem.
- Consulted on all aspects of Dash app development; including UI/UX, data pipelining, data visualization, and app performance.

### Data Scientist

#### MapAction

📅 Aug 2020 – Nov 2021

📍 London, UK

- Analyzed satellite imagery using R and Google Earth Engine to identify areas vulnerable to climate-related humanitarian crises. 🌐
- Operationalized predictive models for humanitarian intervention while partially seconded to the UN OCHA Centre for Humanitarian Data.

### Open Data Analyst

#### OpenNorth

📅 Aug 2018 – Aug 2019

📍 Montreal, CA

- Proposed, managed, and implemented projects to improve data-driven decision making in government.
- Delivered trainings to public officials in Ukraine on data management best practices.

## SELECTED PROJECTS

### Using SVR to predict travel times in London

I built and trained a machine learning model in R (caret) to predict travel times across 22 road links in central London. Data collected from London's ANPR camera system. (MSc coursework)

### Social media and crowdsourcing assessment of weather impacts

Member of McGill University research group working to make social media data more useful to crisis managers through the application of social network analysis and topic modelling (Python, BERT). 🌐

## SKILLS

Python

JavaScript

R

SQL

CI/CD

ArcGIS/QGIS

Databricks

Git/GitHub

## EDUCATION

### MSc Spatial Data Science

#### University College London

📅 Sept 2019 - Sept 2020

Thesis: A Comparative Case Study Analysis of Data Production and Maintenance in Humanitarian Mapping Campaigns

### BA (Hons) Urban Geography

#### McGill University

📅 Sept 2014 – May 2018

Thesis: The Legibility of Montreal's Urban Landscapes Through Google Street View

## PUBLICATIONS

Performance Optimizations for Geospatial Dash Apps. Plotly blog. June, 2023.

McDonald, K., Ding, T., **Ker, H.**, et al. (2021). Using epidemiological evidence to forecast population need for early treatment programmes in mental health... The British Journal of Psychiatry, 219(1), 383-391.

Romascanu, A., **Ker, H.**, et al. (2020). Using deep learning and social network analysis to understand and manage extreme flooding. Journal of Contingencies and Crisis Management, 28(3), 251-261.

## VOLUNTEERING

### Women's Racing Committee Member

#### Royal Vancouver Yacht Club

- Building a local sailing community to empower women's participation and excellence in competitive racing.

### President and Co-Founder

#### Open Mapping Group McGill

- Leading a student-run organization with aims to connect community members with open geospatial data and tech to enhance resilience, community-building, and learning.