

# Ian Helm

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## EDUCATION

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### George Mason University

*Graduation Date: Fall 2019*

B.S., *cum laude*, in Geography, Double Minor in Geographic Information Systems (GIS) and Intelligence Analysis.

GPA: 3.58/4.0     Dean's List (Spring 2016, Spring 2018, Fall 2018, Spring 2019, Fall 2019)

## SKILLS

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**GIS:** ArcGIS, CartoDB, GeoDA, ENVI, Trimble GPS

**Programming:** Python, R, MATLAB, JavaScript, Leaflet

**Database:** SQL, PostgreSQL, PostGIS

**Other Tools:** Microsoft Office, Adobe Illustrator, SPSS, Tableau

## RELEVANT COURSEWORK

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**Geography and Analysis:** Geographic Information Systems (GIS), Digital Cartography, Air Photography Interpretation, Satellite Imagery Analysis, Web Mapping, Data Science/Analysis, Quantitative Methods in Spatial Analysis, Regional Geography (China, Africa, Middle East)

**Intelligence Analysis:** Intelligence Analysis Techniques, Homeland Security, Global Affairs

## QUALIFICATION CRITERIA

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### Research and Analysis

I have taken several classes where I have applied my analytical skills to different problem areas, including multispectral and hyperspectral imagery (i.e. GGS 412 (Air Photography Interpretation) and GGS 314 (Satellite Image Analysis)). This analytical work included applying programming languages and software such as ENVI and MATLAB.

### Communication and Interpersonal Skills

I have presented and explained my final project results in several of my classes. For example, I presented and demonstrated an interactive DC crime map that I made for a web mapping class and presented an ESRI Story Map that I created for a cartography class.

### Collaboration and Building Working Relationships

Multiple classes that I have taken have involved group projects. I have often taken leadership roles to oversee that a quality project was completed on time and that it met the specific requirements expected. For example, I worked on a group research project for several weeks at GMU's GIS Day as part of an Applied Geographic Information Systems class.

### Technical Skills

I have taken several classes that have given me a solid background with programming languages such as Python, R, and MATLAB. I have gained experience with creating algorithms in Python to solve spatial and non-spatial tasks, and have learned how to do comprehensive statistical analysis and data visualization with MATLAB and R. In addition, I have applied MATLAB to analyze and transform satellite imagery. Finally, I have experience with database technologies including applying PostGIS to manipulate and analyze spatial databases.

## **Physical Requirements**

In the cartography and analysis classes that I have taken, it has been very important for me to distinguish between shades/hues of principal colors, especially considering how critical color is when communicating spatial data. I currently have visual acuity of 20/20 for both near and far distances.

## **EXTRACURRICULAR ACTIVITIES/VOLUNTEERING**

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### **Mason Mappers**

*September 2016 – December 2019*

- Participated in project to improve GMU's campus map by critiquing the current map and examining shapefiles to determine accuracy.
- Helped create outreach map for the Geography and Geoinformation Science Department at GMU by geocoding Excel list of GIS private sector employers using ArcGIS and assisting with final cartographic work.
- Helped create point shapefiles of fire hydrants located throughout GMU's campus through field surveying with Trimble GPS.
- Volunteered in Mapathon session using Humanitarian OpenStreetMap to help digitize buildings, farmland and roads in the Philippines.
- Served as Vice President of Mason Mappers for the Fall 2019 Semester where I helped with duties such as presenting the meeting agendas and assisting with project planning sessions.

### **Intelligence Community Club**

*November 2018 – December 2019*

- Participated in meetings to gain more knowledge of the Intelligence Community including career opportunities.

### **Humanitarian OpenStreetMap**

*November 2018 - Present*

- Regularly remote volunteer to digitize buildings, farmland and roads on various collaborative projects to aid with disaster and humanitarian relief.

## **WORK EXPERIENCE**

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### **DogVacay/Rover.com (McLean, VA)**

**Job Role:** Pet Sitter

*July 2014 – December 2018*

- Started a dog boarding/walking service to provide 24-hour care for dogs.

### **Bed Bath & Beyond (Vienna, VA)**

**Job Role:** Team Member/Cashier

*May 2017 – August 2017*

- Provided customer support for health-related products. Worked as cashier and helped with restocking and cleaning of store's facilities.

### **Domino's Pizza (McLean, VA)**

**Job Role:** Customer Service Representative

*Jan 2015 – August 2015*

- Took orders, operated the cash register, and dealt with customer concerns. Assisted with pizza-making and keeping the store clean.