

# Peter Whitman

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## Summary

Data scientist with 4+ years of experience, skilled at developing machine learning models along with leveraging high-performance (HPC) and cloud computing resources to analyze spatial and temporal data for environmental monitoring. Proven track record in technical writing and collaborating within hybrid teams across government, academia, and industry to deliver actionable data-driven solutions.

## Experience

### Planet Labs

San Francisco, CA

Solutions Engineer

03/2024 – Present

- Acted as a subject matter expert, engineering software solutions in Python that leveraged cloud computing resources and REST APIs to prepare, process, and analyze petabytes of satellite and geospatial data.
- Collaborated within an agile development team using GitLab, managing project requirements for contracts with government agencies, utilities, and agri-food companies valued over \$1 million.
- Established a standard operating procedure for automated detection of water quality anomalies through time series analysis of multispectral satellite data.

### U.S. Environmental Protection Agency

Raleigh, NC

Oak Ridge Institute of Science and Education Research Fellow

09/2019 – 09/2022

- Completed a competitive fellowship program, authoring 8 peer-reviewed publications that influenced state and federal policy decisions.
- Led collaborative projects with NASA, USGS, and NOAA to establish novel methods utilizing multispectral, hyperspectral, and synthetic aperture radar (SAR) data for satellite-based water quality monitoring.
- Developed scalable software and machine learning models in Python, JavaScript, and R, leveraging high-performance computing (HPC) resources to analyze terabytes of satellite and geospatial data.

### University of British Columbia

Vancouver, BC

Graduate Research Assistant

05/2018 – 08/2019

- Pioneered an innovative workflow integrating photogrammetry, image processing, and machine learning in Python and MATLAB, enabling unprecedented, automated analysis of historical airborne image data.
- Authored a grant proposal to secure funding and performed analysis of structured and unstructured data using R and SQL to identify variables that influence cardiac arrest outcomes in British Columbia.

Graduate Teaching Assistant

09/2017 – 05/2019

- Instructed 300+ students in geographic information science (GIS) and remote sensing, delivering comprehensive learning experiences through live Python and ESRI ArcGIS demonstrations, labs, lectures, and individualized assistance.
- Recognized with the Geography Department's 'Outstanding Graduate Teaching Assistant Award' in 2019 for excellence in teaching and student engagement.

## Education

### University of British Columbia

Vancouver, BC

Master of Science, Geography

2019

### Carthage College

Kenosha, WI

Bachelor of Arts, Geographic Information Science and Environmental Science

2017

- Geospatial Science Department 'Distinguished Senior Award'
- Environmental Science Department 'Distinguished Senior Award'

## Skills

**Programming Languages:** Python (GDAL, SciPy, Scikit-learn, TensorFlow, Keras, Geopandas, Xarray, Matplotlib), R (ggplot2, raster, stats, caret, sp, sf, rgdal, spatstat), MATLAB, JavaScript, SQL, Unix/Linux shell

**Technology Stack:** Slurm, GitHub and GitLab, Visual Studio Code, Google Earth Engine, QGIS, ESRI ArcGIS, ENVI, Google Cloud Platform, Jira, Salesforce, Slack, Microsoft Office Suite, Google Workspace