
SUMMARY

Innovative **Geospatial Data Engineer** with expertise in leveraging geospatial analysis, machine learning, and GIS technologies to extract actionable insights. Solid programming skills in **Python, SQL, R, JavaScript** and **GIS** (*Esri Suites, Global Mapper, remote sensing, Lidar techniques*). Committed to driving data-informed decision-making in fields of environmental services, engineering, and location-based services.

EDUCATION

University of Wisconsin-Madison, WI, USA

September 2019 – December 2020

M.S. in Geographic Information System/Cartography with GPA 3.8/4.0

- Courses: Advanced Quantitative Method, Geospatial Database Design and Development, Geocomputing, Interactive Cartography & Geo Visualization

SKILLS

- **Programming:** Python (GeoPandas, GDAL, NumPy, Pandas), SQL, R, JavaScript
- **Geospatial Analysis:** Machine learning for geospatial applications, predictive modeling, geoprocessing
- **Database Management:** PostgreSQL, PostGIS, MySQL Workbench
- **Web GIS:** Experience with ArcGIS Online, ArcGIS Portal, and Web mapping APIs (**Mapbox GL JS**, Leaflet, **ArcGIS API**, D3.js, Google Maps API)
- **GIS:** Proficient in **Esri ArcGIS** ecosystem (ArcMap, ArcGIS Pro, ArcGIS Enterprise, Story Maps, ArcGIS REST services), **satellite imagery analysis** (Landsat, Sentinel), Lidar data classification and segmentation, drone technologies

WORK EXPERIENCE

GIS Application Specialist

March 2022 – Present

Blue Marble Geographics, Hallowell, Maine, USA

- Consults with 300+ clients across engineering, transportation, environmental services, surveying, gas & oil and utility, to solve geospatial problems using various GIS technologies: **GIS and Geodetic software, Python, PostgreSQL, AWS**.
- Contributes **40% of the training department's revenue** by leading public GIS training classes in advanced geospatial data processing and spearheading the development of GIS scripting courses.
- Deliver talks to showcase geospatial solutions at trade show and industry conferences.
- Optimizes virtual machine deployments and resolves complex **enterprise-scale application deployment** challenges.

LiDAR Data Analyst

June 2021 – Dec 2021

Cyclomedia, Middleton, Wisconsin, USA

- Executed proprietary LiDAR **point cloud visualization and extraction** software to create a comprehensive digital asset library for transportation, telecommunication, and gas industries.
- Optimized project process flow in QA, contributing to a \$5 million increase in utility and communication projects in 2021.

Research Assistant

Jan 2020 – Mar 2021

The Geospatial Data Science (GeoDS) Lab, UW-Madison, Wisconsin, USA

- Co-authored papers published in international scientific journals: ["Places for Play: Understanding Human Perception of Playability in Cities Using Street View Images and Deep Learning"](#) (2021)
- Compiled environmental GIS data, the EPA's smart location database and demographic spatial datasets
- Analyzed data over 100,000 Google Street View images to discern spatial patterns in Python using Matplotlib and developed a custom spatial analysis function using Shapely and GeoPandas.

GIS Metadata Technician

September 2019 – September 2020

The Arthur H. Robinson Map Library, UW-Madison, Wisconsin, USA

- Processed metadata for over 700 geodatabases for county governments using **ArcGIS** products, managed archival geospatial data, including classification LAS, terrain and contours, and aerial imagery for the [GeoData@Wisconsin](#) portal.
- Developed **automated Python pipelines** to manage geodatabases using Arcpy.

PROJECTS

- [Midwest Dam Infrastructure Volunarbility Analysis](#)
- [Web GIS: Campground and Public Land Exploration](#)
- More projects at [My Portfolio](#).