
SUMMARY

Innovative **Geospatial Data Engineer** with skills in geospatial analysis, machine learning, and GIS tools. Committed to driving data-informed decision-making in fields of environmental services, engineering, and location-based services.

EDUCATION

- **University of Wisconsin-Madison, WI, USA**

Madison, WI

*Master of Geographic Information System & Cartography; GPA: 3.8/4.0**September 2019 – December 2020**Courses: Interactive Cartography & Geo Visualization, Database Design and Development, Geocomputing & Big Data Analytics*

SKILLS

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

WORK EXPERIENCE

- **Blue Marble Geographics**

Hallowell, ME

*GIS Application Specialist**March 2022 – Present*

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

- **Cyclomedia**

Middleton, WI

*LiDAR Data Analyst**June 2021 – Dec 2021*

- 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.

- **University of Wisconsin, Madison**

Madison, WI

*Research Assistant at The Geospatial Data Science (GeoDS) Lab**Jan 2020 – Mar 2021*

- **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 at The Arthur H. Robinson Map Library**September 2019 – September 2020*

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

PROJECTS

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