

MARINE GEOSPATIAL ANALYST

[The Great Lakes Observing System](#) (GLOS) is a nonprofit that provides end-to-end data services that support science, policy, management and industry in the U.S. and Canada. Whether deciding to venture out on a boat or confronting the effects of climate change, we want to equip observers with high-quality, up-to-date lake information from the region's observing network.

The Marine Geospatial Analyst will serve as the geospatial data expert at GLOS, with a focus on bathymetric and marine applications. Tasked with supporting observation, data management, cyberinfrastructure, and communications, this position is critical for the successful dissemination of data and information in the region. Working closely with the GLOS team, contract vendors, GLOS partners and interjurisdictional and multi-agency stakeholders, this team member is responsible for the collection, management, and maintenance of the GLOS geospatial data needs.

Reporting to the CIO, the marine geospatial analyst will be required to work independently and in a team environment, represent the company, occasionally travel, recommend technology solutions and innovations, advocate and support the Lakebed 2030 initiative and all other matters related to GLOS, marine geospatial data, bathymetric data, data processing and products, outreach and application development.

This is a remote, in-person or hybrid role dependent upon the location of the select candidate. This position is open to US Citizens or permanent residents.

RESPONSIBILITIES

There are three primary areas of responsibility that this position is responsible for:

Marine, Bathymetric and Geospatial Data and Software Systems

- aggregate, ingest and assist with dissemination of public, private and partner data sources
- manage the GIS system(s) [enterprise, AGOL, and desktop] at GLOS including license management
- produce basemaps for Seagull using MapBox, GeoJSON, Mapbox GLJS, and MBTS
- perform spatial data analysis, support modeling and visualization products of a diverse array of multidimensional, temporal and geospatial data.
- assist with configuration, customization of web, map, image, and feature services for Seagull as they relate to geospatial, marine and bathymetric data.
- support the management of geospatial metadata, in compliance with international, IOOS and US federal standards
- responsible for geospatial data management in appropriate data warehouse or other structures
- represent GLOS at geospatial technical events (ie. hackathons, conferences, etc.)
- Maintain and support bathymetry data pipeline into Seagull and DCDB
- Support GLOS bathy related geospatial prototyping efforts
- Support and coordinate bathymetric mapping efforts in the Great Lakes region

Special Projects and GLOS Technologies

- produce cartographic products as necessary to support Seagull, clients, partners, and internal needs
- collaborate with GLOS partners and clients on current and future geospatial data collection
- assist GLOS partners and clients on geospatial data upload and distribution through Seagull
- support, author and update metadata profiles, data dictionaries and metadata interfaces
- training and assisting GLOS staff on GIS/geospatial needs
- support GLOS geospatial prototyping efforts

- Read current literature, network with industry professionals and participate in professional organizations to keep updated with developments in GIS technology

REQUIRED EXPERIENCE AND QUALIFICATIONS

- Bachelor's or Graduate degree in geography, earth and ocean sciences, oceanography, cartography, marine technology, environmental science, GIS, or related field;
- 5+ years of experience working with geospatial data, mapping technologies (ie. ArcGIS, QGIS). Must have knowledge and experience working with geospatial software (enterprise and desktop), geospatial data, diverse formats and data types.
- Experience with processing and modeling bathymetric and other marine data, specifically multibeam, single beam, navigation, high resolution surfaces/models, bathymetric attributed grids (BAGs), point clouds and sound velocity profiles
- Familiar with bathymetry processing and modeling software, examples include: (Qimera, CARIS, Fledermaus, ArcGIS Geoprocessing)
- Familiarity with workflows used to collect and process marine and bathymetric data and related products.
- A solid understanding of AUV, UUV, Lidar, Sonar, satellite derived bathymetry technologies and related data
- An understanding of computer programming, scripting and supporting technologies for customization, configuration and automation of GIS based processes.
- Ability to work independently, commit to deadlines, multitask and work collaboratively across disparate teams of people distributed regionally and globally.
- Strong written and oral communication and presentation skills, including ease in communicating complex concepts in a clear, effective manner for a general audience.
- Must be able to pass Federal background check screening due to GLOS offices being located in a Federal building.

There will be some travel associated with this position. Estimate 4-5 trips per year throughout the Great Lakes region (including Canada). A valid passport is required.

PREFERRED EXPERIENCE AND QUALIFICATIONS

- A high degree of experience working with marine or oceanographic data, bathymetric data, elevation/terrain models
- Familiarity with multiple GIS systems, marine data systems, their applications and workflows.
- Familiarity with geospatial standards including Open Geospatial Consortium, ISO TC 211-19, Coastal and Marine Ecological Classification Standard (CMECS), ISO Metadata reporting standards, and IHO Standards for Hydrographic Surveys;
- Demonstrated experience and/or leadership in developing methods and procedures to improve stewardship of geospatial data, analysis, processing and product generation.
- Understanding of different modeling methods for geospatial visualization of complex, multi-resolution, multi-attribute data.(ie. hex, tile, quadtree, etc)
- familiarity with python, Javascript, react, Arcade, Mapbox GLJS

SALARY AND BENEFITS

- This is a full-time, exempt position with a salary range of \$80,006 - \$96,006 (GS-11).
- Medical, Vision and Dental coverage options
- Flexible Spending Account (FSA) option
- SEP-IRA retirement plan
- Generous paid time off including US Federal holidays and 26 annual PTO days

TO APPLY

Please submit a cover letter, resume, and three references to the hiring committee at jobs@glos.org by February 29, 2024. Salary is commensurate with education and experience.