



NATURAL AREAS CONSERVANCY GIS Analyst and Data Manager

ORGANIZATIONAL OVERVIEW

The Natural Areas Conservancy (NAC) was founded in 2012 to advance the restoration and conservation of natural areas for a resilient and healthy New York City. Working in partnership with the New York City Department of Parks and Recreation (NYC Parks), we seek to ensure the high-quality management of NYC's 20,000 acres of forests and wetlands. Our work includes conducting scientific research, restoring natural habitats, developing tools to inform data-driven management, and increasing awareness and opportunities for the public to experience NYC's abundant nature and diverse ecology. The Natural Areas Conservancy is vital to citywide efforts to raise additional resources for resiliency and conservation, conduct applied research, and increase the long-term sustainability of forests and wetlands. More information about our work is at naturalareasnyc.org.

POSITION OVERVIEW

Under supervision of the NAC Senior Ecologist and working in close collaboration with the NYC Parks Forestry, Horticulture, and Natural Resources GIS & Analytics team, the GIS Specialist and Data Manager will provide GIS and data management support to the Natural Areas Conservancy team including cartography, GIS and non-spatial data analysis, database management, ecological field data collecting, scripting, web app building, ArcGIS for Server management, and GPS support. Working with the NAC team and partner organizations, the GIS Specialist and Data Manager will assist with the planning and management of projects with a GIS component.

MAJOR RESPONSIBILITIES

- Manage the SQL Server database of spatial and non-spatial data, including developing and maintaining solutions for collecting, browsing, editing and entering data by the NAC team, and writing queries to summarize data for analysis based on ecological questions.
- Understand spatial challenges in ecological studies and create spatial analysis tools and workflow automation using Python and Windows Shell scripting languages.
- In collaboration with NYC Parks, manage ArcSDE geodatabases for NAC and the NYC Parks Department's Natural Resources Group including design and maintenance of relational databases in SQL Server.
- In collaboration with NYC Parks, manage the shared ArcGIS for Server including publishing and managing services and developing GIS web applications.
- Work with the NAC team to develop visualizations of ecological datasets including maps, charts, and interactive web visualizations.
- Serve as a point person for NAC GIS projects with partner organizations.
- Provide GIS support for field research projects, including configuring ArcPad projects on GPS units and developing alternative data collection solutions.
- Provide GIS support for landscape analyses for natural resource managers, including conducting spatial analyses using physical and ecological vector and raster data and developing summary reports.



REQUIRED QUALIFICATIONS

- A bachelor's degree from an accredited college, with major study in Geographic Information Systems, geography, environmental sciences, ecology, forestry, computer science, and other related disciplines such as horticulture, landscape architecture, or city planning.
- A minimum of four years managing GIS projects and GIS enterprise databases, preferably SQL Server. Must be able to write complicated SQL queries and SQL jobs to select data for analysis.
- Extensive experience using the ESRI ArcGIS suite of software and applications including ArcSDE, ArcGIS for Server, ArcGIS Portal, ArcGIS for Desktop with various extensions, Arc Hydro, ArcPad, AGOL, ArcGIS Web AppBuilder, and ArcGIS Collector.
- Python and shell scripting languages for creating ArcToolboxes and Windows tools.
- Two years of demonstrated experience in the design, development and implementation of ESRI GIS web based applications with spatial and non-spatial data with any of the following programs: VBA, .NET, JavaScript, CSS, ArcGIS APIs, JSON, HTML, XML, R.

PREFERRED QUALIFICATIONS

- A Master's degree with major study in Geographic Information Systems, geography, environmental sciences or engineering, ecology, forestry, computer science and other related disciplines such as horticulture, landscape architecture or planning.
- Knowledge of basic ecological statistical analysis.
- Demonstrated experience with Trimble GPS devices and other field computing solutions.
- Experience working with end users and technical staff to define requirements and implement technology solutions.
- Experience in project management, especially in projects with multiple partner organizations.
- Strong communication skills, especially with analytical products as well as process documentation and sharing knowledge.
- Driver license valid in New York State.

To apply, please submit a cover letter and resume with the position title to:

jobs@naturalareasnyc.org

