



“Providing a Balanced Approach to Natural Resource Management”

Position: Applied Python Developer

If you are looking to be part of a team working atmosphere where collaboration and support are the cornerstones of daily work that reaches far beyond office walls, and makes a difference in the natural resource world, we welcome you to apply to Northwest Management, Inc. We are a full-service natural resource consulting firm based in Moscow, Idaho, seeking motivated individuals experienced in the development and analysis of diverse spatial data sets and programming (Python) applied to forestry. Interpretation and analysis of remote sensing data as well as the presentation and statistical comparisons of Light Detection and Ranging (LiDAR) and field data are at the core of this position. From the collection of field data to forest growth projections and scientific-publication level research, this position works across a suite of natural resources, with dynamic metrics, to achieve client goals. Being familiar with ArcGIS/QGIS platforms, interested in image-processing outside of ESRI toolsets, and having database experience (SQL, SQLite, or PostgreSQL) is a must. This position will additionally work with other staff on the use of geospatial tools and data interpretation to help identify prospective analytics. Communication and innovation at every level are encouraged.

Status: Full Time, Salary, Professional Exempt

Salary: \$70,000 to \$110,00 DOE

Time Frame: Starting as Soon as Available.

Location: This position will report to our corporate office in Moscow, Idaho. Regular work will occur within the Moscow office. There will be occasional remote-work assignments, dictated by project needs.

Primary Duties Include:

- Code, test, and apply statistical models for geospatial and data-mining applications with Lidar data on natural landscapes.
- Develop innovative methods for answering client requests with Lidar data and expand the team’s applications of these data in natural resource management and stewardship.
- Analyze and resolve technical, mathematical, and statistical problems.
- Write functional and detailed design documentation, program specifications, test plans, and other system documentation.
- Independently recognize and resolve methodological and/or conceptual errors within our workflows.
- Maintain integrity of program logic and style and establish required checks and balances for operational controls.
- Participate as a team member to plan, design, develop, test, and continually improve the quality and efficiency of products.
- Continue to expand the technical services network through targeted participation in promotional activities, proposal development, budgeting and project management related to remote sensing and GIS, as requested.

Minimum Qualifications:

- An MS or PhD degree in geology, physics, mathematics, computer science, or other highly technical field with a connection to research on natural environments; and a minimum of two (2) years’ experience in quantitative data analysis, software development, and/or applied statistical modeling.
- Highly skilled with Python, and/or R.

- Ability to design, develop, test, document, apply, and explain, statistical/mathematical methods to extract actionable information from large, complex data sets that include 3D point clouds.
- Ability to create and interpret complex statistical models and their predictions.
- Demonstrated background in statistical accuracy-testing and modeling.

Additional Desirable Qualifications:

- Demonstrated expertise in neural networks, computer vision, data mining, machine learning, and/or deep learning. Experience with machine learning methods and tools including scikitlearn and keras among others.
- Experience working with remote sensing data (Imagery, Radar, etc.) and geospatial data structures in Python.
- Experience with LiDAR data; manipulation, acquisition technology and/or software applications in Python.
- Publication experience as a lead author in a scientific peer-reviewed journal.
- Experience with relational databases and SQL or PostgreSQL.
- Creative and versatile data visualization skills.

The majority of work for this position operates in a professional office environment. This position must regularly lift 15 pounds and occasionally lift and move up to 50 pounds. This position is occasionally required to stand; walk; climb or balance and stoop, kneel, crouch, or crawl outdoors, on uneven terrain, and in inclement weather while operating technical data-collection equipment. The geographic working area is predominantly in the Inland Northwest; however, the operating area for this position includes the continental U.S. and occasional international travel.

If you are interested in this position please submit an application to careers@northwestmanagement.com

Closing Date: As soon as filled, 2023