Job Title: Innovation Scientist - Geospatial Ecohydrology Modeling

Location: Seattle,WA (possible remote option)
Employment Type: Full-time

About Us

TealWaters provides a breakthrough solution for mapping and modeling wetlands and quantifying their benefits to society. Our interactive visual platform -- using topographic and satellite imagery, hydrology, and machine learning -- will empower natural resource managers, from the neighborhood to continent-scale, to govern and restore wetlands as nature-based solutions. Our collaborative work with local and sovereign governments, the private sector, and mission-driven organizations provides decision support for aquatic ecosystem management, ranging from flood protection and water quality enhancement to carbon storage and biodiversity conservation.

We're a fast-paced, mission-driven science start-up—born out of the National Science Foundation's Convergence Accelerator program in 2024—that blends the creativity of academic research with the urgency of solving real-world problems. Our team is interdisciplinary, collaborative, and ambitious. We thrive on problem-solving, rapid iteration, and turning cutting-edge science into tools that make a tangible difference for people and the planet.

Position Overview

We are seeking an Innovation Scientist to help shape the next generation of methods for mapping and modeling wetland landscapes. This is a grant-funded position, similar in scope to a postdoctoral role in academia, but with a faster pace and stronger emphasis on operational applications.

The Innovation Scientist will be a thought leader with a focus on developing and testing new approaches to integrate hydrology, geomorphology, and geospatial science into scalable workflows. While strong coding skills are required, the emphasis is on methodological innovation, scientific grounding, and problem framing—identifying gaps, prototyping solutions, and pushing the boundaries of what's possible in wetland science and decision support.

This role is ideal for a recent PhD graduate who wants to move beyond traditional academic research and bring their expertise directly into practice, contributing to tools that influence conservation, policy, and community resilience.

Key Responsibilities

- Develop and test new scientific methods to improve mapping, modeling, and characterization of wetland and channel network dynamics.
- Explore and evaluate algorithms that integrate hydrology, geomorphology, and geospatial data (LiDAR, DEMs, remote sensing).
- Design workflows that incorporate uncertainty analysis, scale-dependence, and process-based principles into landscape modeling.
- Contribute to the scientific grounding of TealWaters' products, ensuring rigor and reproducibility.
- Collaborate with technical developers to transition new methods into operational tools and decision-support platforms.
- Conduct targeted fieldwork (as needed) to validate models and inform methodological improvements.
- Communicate findings through peer-reviewed publications, technical documentation, stakeholder reports, and participation in conferences and workshops.

Qualifications

Required:

- PhD in hydrology, geomorphology, geospatial sciences, environmental science, civil/environmental engineering, or a closely related field.
- Demonstrated ability to lead independent research, from concept to publication.
- Strong coding skills in Python or R for geospatial and statistical analysis.
- Experience with GIS platforms (QGIS, ArcGIS, or similar).
- Proven ability to bridge scientific theory with applied problem-solving.
- Strong written and verbal communication skills, including experience writing for scientific and non-scientific audiences.
- Curiosity, adaptability, and a collaborative spirit—comfortable working in a fast-paced, evolving organization.
- Research experience with wetlands, watershed processes, or aquatic systems.

Preferred:

- Background in statistics, machine learning, and quantifying uncertainty.
- Demonstrated interest in method development and novel applications of geospatial data.
- Interdisciplinary collaboration experience (e.g., linking hydrology with ecology, social science, or policy).
- Design and implement algorithms for numerical problem-solving, developing efficient code in low-level languages and integrating the results into Python and R packages.
- Field experience collecting environmental or hydrologic data.

What We Offer

- The opportunity to shape new scientific methods that advance wetland science and management.
- A role that combines the intellectual freedom of a postdoc with the impact and urgency of applied science.
- Professional development and mentorship in science-to-operations translation, stakeholder engagement, and applied tool development.
- Collaboration with a dynamic, interdisciplinary team of scientists, developers, and practitioners.
- Salary: $85,000 – $105,000 per year, with promotion potential based on performance.
- Health & Wellness: Annual health stipend provided to support medical, dental, or vision insurance coverage.
- Time Off: Paid time off (vacation, personal days, and sick leave) plus paid holidays. Specific accrual rates and holiday schedule will be provided during the hiring process.

How to Apply

If you're inspired by applied science that improves understanding and protection of natural and working lands, we want to hear from you! Please send your resume, cover letter, and any relevant project information in a single pdf to meghan@tealwaters.com. Please use the following file name format for the pdf: [last name]_TWapp_[date]. Applications will be reviewed on a rolling basis until the position is filled.