Hydrologic Data Specialist

Job Detail

JOB OPENING ID
259284

WORKING TITLE
Hydrologic Data Specialist

JOB TITLE
Research Lab Specialist Assoc

WORK LOCATION
Ann Arbor Campus
Ann Arbor, MI

MODES OF WORK
Onsite
Hybrid

FULL/PART TIME
Full-Time

REGULAR/TEMPORARY
Regular

FLSA STATUS
Exempt

ORGANIZATIONAL GROUP
School Nat Res Envir

DEPARTMENT
SEAS CIGLR

POSTING BEGIN/END DATE
1/27/2025 - 2/26/2025

SALARY
$58,656.00 - $65,000.00

CAREER INTEREST
Research

How to Apply

Applications are welcomed and encouraged from all qualified individuals regardless of background and identity. To apply, please complete the application on the U-M Careers site. A one page cover letter is required for consideration for this position and should be attached as the first page of your resume. The cover letter should:

- Address your specific interest in the position and outline your experience that is directly related to this position.
- Describe in detail your experience that pertains to each of the required qualifications listed below.

Job Summary

We are seeking a Hydrologic Data Specialist to support efforts underway at the Cooperative Institute for Great Lakes Research (CIGLR) and the NOAA Great Lakes Environmental Research Laboratory (GLERL) to develop next generation hydrologic and water level forecasting of the Great Lakes and advance ice data analysis. In this position, you will

- Integrate hydro-meteorological features, such as teleconnections, snow, and soil conditions, into data-driven hydrologic models for the Great Lakes region.
- Assess model performance and integration of models into the operational framework.
- Analyze ice modeling and observation datasets and perform intercomparisons.

In addition to data analysis and computing work, you will also be expected to attend collaborative meetings and provide progress updates, present results at scientific conferences (e.g., the International Association for Great Lakes Research), and help prepare manuscripts for publication in high-impact journals. You will be expected to work as part of an interdisciplinary team, as well as independently on individual job responsibilities and goals. In this position you will report to SEAS-CIGLR Assistant Research Scientist, Yi Hong.

This position is open only to US Citizens or permanent residents due to federal security clearance required for access to NOAA GLERL facilities and

resources.

Term Limited Appointment: This is a one (1) year term limited appointment, with an opportunity for extension based on funding and performance.

Mission Statement

The School for Environment and Sustainability (https://seas.umich.edu/) is a collaborative and interdisciplinary school. Our mission includes contributing to the protection of environmental resources and the achievement of a sustainable society. We accomplish this by generating and sharing knowledge, contributing to policy and engaging managers and stakeholders. The University of Michigan is a top-ranked public university with excellence in research and teaching. Ann Arbor, home to the University of Michigan, is a town known for arts, culture, parks and restaurants.

SEAS is committed to creating and maintaining an inclusive and equitable environment that respects diverse experiences, promotes generous listening and communications, and discourages and restoratively responds to acts of discrimination, harassment, or injustice. Our commitment to diversity, equity and inclusion is deeply rooted in our values for a sustainable and just society.

Who We Are

Cooperative Institute for Great Lakes Research (CIGLR), is part of the University of Michigan's School for Environment and Sustainability (SEAS) located in Ann Arbor, Michigan. CIGLR is a collaboration between the University of Michigan and NOAA that brings together experts from academia and government research labs to address pressing problems facing the Great Lakes region.

Why Work at Michigan?

In addition to a career filled with purpose and opportunity, The University of Michigan offers a competitive salary and comprehensive benefits package to

help you stay well, protect yourself and your family and plan for a secure future. Benefits include:

- Generous time off
- A retirement plan that provides two-for-one matching contributions with immediate vesting
- Many choices for comprehensive health insurance
- Life insurance
- Long-term disability coverage
- Flexible spending accounts for healthcare and dependent care expenses

Responsibilities*

- Process and analyze collected meteorological datasets (e.g., CFSR, ERA5) and derive features representing teleconnections, such as extratropical cyclones (ETCs).
- Develop data-driven hydrologic models for the Great Lakes region under the guidance of CIGLR and GLERL hydrologic and data scientists.
- Incorporate features like ETCs and initial catchment conditions, including snowpack and soil moisture, into hydrologic models and evaluate the performance of different model configurations.
- Integrate the developed models into the operational water level forecasting framework.
- Analyze existing ice cover datasets and long-term simulations, and perform statistical analyses such as seasonal, trend, and regression analysis.
- Contribute to project reports and professional manuscripts by providing project analysis, results, and figures.

Required Qualifications*

- A Bachelor's degree in a field similar to hydrology, Earth-system data science, geosciences, or climate science. A Master's degree is preferred.
- At least 1 year of related professional or academic experience.
- Experience working with machine learning or AI models.
- Familiarity with hydrologic numerical modeling.
- Familiarity with data analysis and visualization in a scripting environment using Python or similar software.

Modes of Work

You will spend the majority of time at NOAA's Great Lakes Environmental Research Laboratory (GLERL) in Ann Arbor. Our team offers flexible work styles, such as flexible hours and/or flexible workplace (with approved agreements in place), however this position is not eligible for fully remote work.

Positions that are eligible for hybrid or mobile/remote work mode are at the discretion of the hiring department. Work agreements are reviewed annually at a minimum and are subject to change at any time, and for any reason, throughout the course of employment. Learn more about the work modes.

Additional Information

Salary will be determined based on experience.

Application Deadline

Job openings are posted for a minimum of seven calendar days. This job may be removed from posting boards and filled any time after the minimum posting period has ended.

Applications will be reviewed as received throughout the posting period and continue until the position is filled.

U-M EEO/AA Statement

The University of Michigan is an equal opportunity/affirmative action employer.