Research Associate – Hydrologic Streamflow Modeling

Position Description

Discover your potential as a career-track, Master's-level, Research Associate with The University of Oklahoma's Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO). This role presents an exciting opportunity to support research in flash flooding, aviation weather, and winter storms. The primary emphasis for this position will be on hydrologic streamflow modeling and will be conducted in collaboration with NOAA's National Severe Storms Laboratory (NSSL).

Overview

This position's main goal is to integrate NSSL's flash flood routing model (FLASH) into the Warn-on-Forecast System (WoFS). This involves:

- Developing the necessary coding infrastructure to link the two systems.
- Evaluating the resulting forecast output against gauge observations and local storm reports.
- Creating decision-support tools that stakeholders can use to analyze the forecasts.

Additional work may include advancing hydrological modeling within the Multi-Radar/Multi-Sensor (MRMS) system, assisting with aviation research to support the Federal Aviation Administration (FAA), and supporting winter-weather research in partnership with the National Weather Service (NWS).

Key Responsibilities

Specific tasks include:

- Supporting the transition and evaluation of a flash-flood hydrologic model into the WoFS codeset
- Assist with the development of decision-support tools for interrogating probabilistic forecasts of flash flooding
- Presenting research at conferences and for stakeholder meetings
- Assisting with preparation of grant proposals, publications, and reports

Qualifications

We are looking for candidates who possess:

- A Master's degree in Meteorology, Hydrology, or Civil Engineering
- Excellent oral and written communication skills
- Ability to work and communicate effectively in a highly collaborative team setting

Desired skills:

- At least 5 years of post-graduate research experience with an emphasis on hydrology and flash flooding
- Experience working with hydrologic streamflow models
- Strong computer programming experience and ability to code in Python and C++

Benefits and Work-Life Balance

Joining our team comes with numerous benefits, including:

- Competitive salary based on experience and comprehensive university benefits (http://hr.ou.edu/).
- Generous paid leave, encompassing 15 paid holidays and 22 hours of paid time off per month.
- Reduced membership at The University of Oklahoma's state-of-the-art fitness and aquatic center (https://www.ou.edu/far).

We are dedicated to promoting a healthy work-life balance by championing a flexible work culture, offering adaptable work hours and a hybrid work arrangement. This framework enables team members to navigate personal commitments while effectively contributing to their professional responsibilities. More details about working at the University of Oklahoma, benefits packages, as well as living in Norman Oklahoma are provided on our website: https://jobs.ou.edu/Discover-OU.

How to Apply

To apply, please submit:

- A cover letter highlighting your interest in the position and describing how you meet the position qualifications,
- Your up-to-date resume/CV, and
- A list of three professional references.

Send your application materials to: ciwro-careers@ou.edu. Please use the subject line: "**ATTN: Hydro**. Applications will be accepted until the position is filled. The starting date is negotiable.

The University of Oklahoma is an equal opportunity/Affirmative Action employer.