



## CIWRO Research Scientist Warn-on-Forecast Modeling

### Overview

The Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO) seeks to fill a Research Scientist position for its collaborative research as a Cooperative Institute with the National Oceanic and Atmospheric Administration (NOAA) Office, specifically with the National Severe Storms Laboratory (NSSL) in Norman Oklahoma. This Research Scientist position will contribute greatly to NSSL's Warn-on-Forecast (WoF) program (<https://wof.nssl.noaa.gov/>) that is housed here in the National Weather Center and located in Norman Oklahoma (<https://www.ou.edu/nwc>).

A major activity at NSSL over the past decade has been the research, development, and evaluation of storm-scale ensemble Numerical Weather Prediction (NWP) modeling for hazardous weather threats. A successful candidate for this position will help develop an experimental WoF system using the regional Model for Prediction Across Scales-Atmosphere (MPAS-A) dynamic core and the Joint Effort for Data Assimilation Integration (JEDI) system. The incumbent will research and develop new program features and/or optimize existing MPAS and JEDI code for Warn-on-Forecast application.

### Job Responsibilities

As a CIWRO Research Scientist for Warn-on-Forecast Modeling you will:

- Optimize code, develop and test NSSL's WoF system using the MPAS dynamical core and JEDI software using NOAA's high performance computing platforms.
- Conduct high-quality research to improve the performance of MPAS-based WoFS by testing improved or new data-assimilation techniques. This will involve processing observations, conducting data assimilation sensitivity experiments and evaluating the analysis performance using existing and/or newly developed verification/diagnostic/visualization tools.
- Serve as the lead and contributing author on scientific manuscripts for publication in peer-reviewed journals as well as present at conferences, workshops, and symposia.
- Creatively and efficiently solve scientific problems, independently and as part of CIWRO's data assimilation and modeling team.

### Qualifications

We are looking for candidates who possess:

- A PhD in Atmospheric Science or related field.
- Advanced knowledge and skill in NWP modeling, ensemble data assimilation, and observations of the atmosphere.
- Strong computer programming skills with particular emphasis on Fortran and modern scripting languages such as Python, NCL, and Shell scripting. Experience with C and C++ is desired.
- Excellent oral and written communication skills with an ability to work both independently and cooperatively with others.

## **Benefits and Work-Life Balance**

Joining our team comes with numerous benefits, including:

- Competitive salary based on experience; comprehensive university benefits (<http://hr.ou.edu/>).
- Generous paid leave, encompassing 14 paid holidays and 22 hours of accrued 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>).

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>.

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 empowering framework enables team members to seamlessly navigate personal commitments while effectively contributing to their professional responsibilities.

## **How to apply**

Applications should be mailed to [ciwro-careers@ou.edu](mailto:ciwro-careers@ou.edu) Attn: WoF Modeler and include a cover letter, the names and contact information for 3 references, and your resume/cv. The cover letter must highlight your relevant qualifications and how they can contribute to the WoFS team. 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.*