



Postdoctoral Research Associate – MPAS Modeler

Position Description

The Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO) at The University of Oklahoma (OU) is currently seeking a Postdoctoral Research Associate to contribute to NOAA's Warn-on-Forecast (WoF) program in collaboration with CIWRO and National Severe Storms Laboratory (NSSL) scientists. The position focuses on the creation of high-resolution forecast data using the regional Model for Prediction Across Scales–Atmosphere (MPAS-A) dynamical core. The position is part of the Severe Convective Probabilities and Impacts (SCPI) team at CIWRO, located in the National Weather Center (NWC) in Norman, Oklahoma.

Overview

CIWRO, NSSL, and the School of Meteorology at OU, housed within the NWC, share a distinguished history of collaboration in storm-scale research and research-to-operations transitions. The CIWRO SCPI team works in close coordination with NSSL scientists to advance NOAA's WoFS. This position is central to the development of WoFS, focusing on the creation of high-quality model training datasets for WoFSCast, an AI-driven WoFS emulator. In this role, you will collaborate with partners to develop high-resolution forecast data using the regional Model for Prediction Across Scales–Atmosphere (MPAS-A) dynamical core.

As a CIWRO Postdoctoral Research Associate you will:

- Help improve NCAR's Model Prediction Across Scales (MPAS) dynamical core and physics configurations for high-resolution forecasts.
- Generate and evaluate a 3-km regional MPAS dataset and a 1-km MPAS dataset that will be used to train new versions of the WoFSCast, an AI emulator for WoFS.
- 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 the WoFS team.

Qualifications

- A PhD in a STEM field relevant to the position
- Experience with atmospheric weather models and an understanding of atmospheric dynamics and physics.
- Programming skills in Fortran, shell scripting, and Python, with experience working in Linux-based computing environments.
- Excellent written and oral communication skills, with evidence of scientific publication and presentation.
- Ability to work both independently and collaboratively as part of a multi-institution, interdisciplinary team.

Benefits

Joining our team comes with numerous benefits, including:

- Competitive salary based on experience and comprehensive university benefits
- 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.

More details about working at the University of Oklahoma, benefits packages, as well as living in Norman, Oklahoma are provided on our website: <https://www.ou.edu/hr>.

How to Apply

Applications should be emailed to ciwro-careers@ou.edu, Attn: MPAS Modeler, and include:

- A cover letter highlighting your interest in the position and describing how you meet the position qualifications,
- The names and contact information for three references
- Your résumé/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.