Research Scientist – Improving Short-term Fire Weather Warning Guidance

Overview

The Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO) seeks a highly motivated individual to improve high resolution fire weather warning guidance using high resolution forecast models such as the National Severe Storms Laboratory (NSSL) Warn-on-Forecast System (WoFS). Fire weather watch and warning guidance can use short-term 0-6 hour probabilistic forecasts of atmospheric smoke from satellite detected wildfires, and the conditions for which fire spread may be likely to occur. The primary task of this position is to further improve future fire weather warning guidance through coupling of WoFS or similar systems with fire spread models, development of innovative visualization products, and verification of these improvements against radar and satellite observations. This is a Research Scientist position to be located in Norman Oklahoma at the National Weather Center on the campus of the University of Oklahoma.

Job Responsibilities

As a CIWRO Research Scientist supporting fire weather research, you will:

- Improve fire weather forecasting capabilities of WoFS and similar systems through the addition of coupled fire-atmosphere models, new modeling and data assimilation techniques, and the use of newly developed wildfire observations.
- Generate objective verification metrics based on radar and satellite observations of wildfire characteristics.
- Interact with fire weather forecasters to disseminate information on system improvements and assess forecaster feedback to guide ongoing work.
- Tasks may also include participation in real-time forecasting activities and data collection activities associated with prescribed burns.
- Lead and contribute to scientific manuscripts for peer-reviewed publications and present research findings at conferences, workshops, and symposia.
- Creatively and efficiently solve scientific problems, both independently and as an integral member of the fire weather forecasting group.

Required Qualifications:

- Ph.D. in Meteorology, Atmospheric Science, or a related field.
- Demonstrated experience in one or more topics including numerical weather prediction, fire spread modeling, remote sensing, wildfire fuels, and/or fire weather forecasting expertise.
- Proficiency in languages like Python, Fortran, and/or C and experience with HPC and cloud environments.
- 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 Attn: Fire 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 high resolution fire weather forecasting. 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.