



Research Associate – Atmospheric Radiation Measurement (ARM) User Facility Data Quality Operations

Position Description

Discover your potential as a career-track, Masters-level, Research Associate with The University of Oklahoma's Cooperative Institute for Severe and High-Impact Weather Research and Operations (CIWRO). Working within the Data Quality Office (DQO), the successful candidate will develop scientific software, investigate atmospheric observations and data quality issues, and collaborate with scientists and the ARM Data Center (ADC) to ensure the delivery of high-quality atmospheric data products for the U.S. Department of Energy's ARM User Facility. This position's main goal is to improve the quality and reliability of atmospheric observational data by evaluating instrument performance, investigating anomalous measurements, and developing tools that support operational data quality monitoring.

Job Responsibilities

- Develop, maintain, and enhance Python software supporting DQO data processing, automated quality-control methods, visualization tools, and metrics generation
- Evaluate atmospheric observations to identify instrument performance issues, investigate anomalous measurements, and improve the quality and reliability of observational datasets
- Collaborate with scientists and mentor student analysts in data quality investigations
- Design, implement, and maintain scientific workflows that support operational data quality monitoring and automated processing
- Optimize high-performance computing resources through efficient job scheduling, resource allocation, and workflow management
- Collaborate with the ADC to support reliable production systems and operational DQO activities

Qualifications

- Master's degree in Atmospheric Science, Meteorology, or closely related field
- Familiarity with atmospheric observations, meteorological instrumentation, and atmospheric data analysis
- Strong Python software development experience
- Experience working with large scientific datasets
- Experience using high-performance computing resources and workload managers such as Slurm
- Strong analytical, troubleshooting, and problem-solving skills
- Excellent written and verbal communication skills

Strong preference will be given to candidates with one or more of the following:

- Experience with container technologies such as Docker and orchestration platforms such as Kubernetes
- Experience developing workflow automation using Argo Workflows or similar workflow management systems

- Experience with CI/CD pipelines and software deployment practices
- Experience with SQL and relational databases
- Familiarity with machine learning or AI-assisted approaches for scientific data analysis

Benefits

- 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: ARM, 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

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.