Position 1: Postdoctoral Researcher in High Resolution Air Quality Forecasting

Job Type: Postdoctoral Researcher
Job Specialty: High Resolution Air Quality Forecasting
Job Rank: Postdoctoral Researcher
Job Institution: Northeastern University
Job Description:

The Department of Civil and Environmental Engineering at Northeastern University is seeking a postdoctoral research associate in High Resolution Air Quality Forecasting. Specific job duties include: enhance high resolution forecasting capability of the National Air Quality Forecast Capability (NAQFC) based on the Rapid Refresh Forecast System (RRFS) coupled with the Community Multiscale Air Quality (CMAQ) modeling system (RRFS-CMAQ) (both offline and inline coupled) for high resolution operational forecasting; assist the project P.I. in completing various research tasks, project reports, and proposals as well as meeting technical requirements and deadlines; and disseminate research results at national/international conferences and high-impact journal papers. In addition to university collaborators, there will be opportunities to collaborate with the scientists from the NOAA/NWS/NCEP/Environmental Modeling Center (EMC), NOAA Air Resources Laboratory (ARL), and the US EPA.

The candidate must have a Ph.D. or equivalent in environmental/chemical engineering, atmospheric sciences, or closely related field with a strong interdisciplinary background in atmospheric chemistry, air quality, cloud/aerosol microphysics and chemistry, climate/meteorology, and emission processing and modeling. Required experiences include: the development, improvement, application, and evaluation of 3-D atmospheric models such as RRFS-CMAQ, WRF/CMAQ, and WRF/Chem; handling large observational data-sets from various platforms including surface networks, field campaigns, and satellites; familiar with FORTRAN 90/C++ and parallel computing on Linux computer and supercomputer systems; excellent oral and written communication skills.

Required Documents include
1. Curriculum Vitae
2. Cover Letter
3. Research Statement
4. References (3 required)
5. Sample Journal Papers (1-2)

To apply to the position, please submit your application at
https://northeastern.wd1.myworkdayjobs.com/careers/job/Boston-MA-Main-Campus/Postdoctoral-Researcher_R111262
 Review of the applications will begin immediately and will continue until the position is filled. For technical inquiry, please contact Dr. Yang Zhang at ya.zhang@northeastern.edu

Position 2: Postdoctoral Researcher in Multiscale Air Quality Modeling

Job Type: Postdoctoral Researcher
Job Specialty: Multiscale Air Quality Modeling
Job Rank: Postdoctoral Researcher
Job Institution: Northeastern University
Job Description:

The Department of Civil and Environmental Engineering at Northeastern University is seeking a postdoctoral research associate in multiscale air quality modeling and forecasting. Specific job duties include: develop, improve, and evaluate 3-D air quality models from regional to hyperlocal (e.g., neighborhood/city block/street) scales for high resolution applications (in both retrospective and forecasting modes) and source apportionment in support of health risk/impact assessment, environmental justice analysis, and city and community decision making; assist the project P.I. in completing various research tasks, project reports, and proposals as well as meeting technical requirements and deadlines; and disseminate research results at national/international conferences and high-impact journal papers. In addition to university collaborators, there will be opportunities to collaborate with stakeholders from cities, communities, industry, and other sectors via various community engagement activities.

The candidate must have a Ph.D. or equivalent in environmental/chemical engineering, atmospheric sciences, or closely related field with a strong interdisciplinary background in atmospheric chemistry, air quality, cloud/aerosol microphysics and chemistry, climate/meteorology, emission processing and modeling, meteorological and chemical data assimilation, ensemble modeling, and uncertainty qualifications. Required experiences include: the development, improvement, application, and evaluation of 3-D atmospheric models such as WRF/Chem, WRF/CMAQ, WRF/CAMx, and fine scale air quality models such as the Street-in-Grid model, ADAM-Urban, MUNICH, and CFD model; source apportionment modeling; urban canopy modeling; handling large observational data-sets from various platforms such as surface networks, low cost sensors, and satellites; familiar with FORTRAN 90/C++ and parallel computing on Linux computer and supercomputer systems; excellent oral and written communication skills.

Required Documents include
1.   Curriculum Vitae
2.   Cover Letter
3.   Research Statement
4.   References (3 required)
5.   Sample Journal Papers (1-2)

To apply to the position, please submit your application at
https://northeastern.wd1.myworkdayjobs.com/careers/job/Boston-MA-Main-Campus/Postdoctoral-Researcher_R111350
Review of the applications will begin immediately and will continue until the position is filled. For technical inquiry, please contact Dr. Yang Zhang at ya.zhang@northeastern.edu