

Multiple PhD positions in the Sustainable URban Futures (SURF) Lab at the University of Oklahoma

The [Sustainable URban Futures \(SURF\) Lab](#) in the School of Meteorology and the Department of Geography and Environmental Sustainability at the [University of Oklahoma](#) in Norman, Oklahoma, USA is seeking multiple self-motivated PhD students who are willing to pursue research in one of the following areas. The expected start date is Aug 2024 (Fall admission).

1. Urban Air Pollution Modeling Position

The SURF Lab is seeking a PhD student to **develop and apply an integrated high-resolution pollutant dispersion model over complex terrain (including urban environments), which will be evaluated with field observations**. The successful candidate will enroll in the Ph.D. program in **Meteorology**. For prospective Ph.D. students, a master's degree in atmospheric science, meteorology, engineering, Earth science, or environmental science is preferred. Candidates with the following experience/expertise are especially encouraged to apply: (1) previous research experience in air pollution modeling, (2) proficiency in programming languages (MATLAB, Fortran, R, and/or Python), and/or (3) familiar with geographic information systems.

2. Building Energy Modeling Position

The SURF Lab is seeking a PhD student to work on **numerical simulations of building energy use and associated carbon emissions in the urban environment**. The successful candidate will enroll in the Ph.D. program in **Meteorology** or **Geography and Environmental Sustainability**. For prospective Ph.D. students, a master's degree in engineering, geography, atmospheric science, meteorology, or Earth science is preferred but not required. Candidates with the following experience/expertise are especially encouraged to apply: (1) previous research experience in developing building energy model(s), and (2) proficiency in programming languages (MATLAB, Fortran, R, and/or Python).

3. Urban Climate Modeling and Analytics Position

The SURF Lab is seeking a PhD student to work on **multiscale urban climate models and data analytics**. The successful candidate will enroll in the Ph.D. program in **Meteorology** or **Geography and Environmental Sustainability**. For prospective Ph.D. students, a master's degree in atmospheric science, meteorology, geography, engineering, Earth science, or environmental science is preferred but not required. Candidates with experience in using programming languages (e.g., MATLAB, Python, R, and/or Fortran), reanalysis data, climate projections, and/or remotely sensed data are especially encouraged to apply.

Successful candidates will work with **Dr. Chenghao Wang**. With the strong modeling and/or data analysis skills developed during the training, successful candidates will have the opportunity to work in an interdisciplinary research team and study a wide range of urban issues and challenges as well as potential mitigation and adaptation measures on the path toward sustainable and resilient urban environments.

If you are interested, please contact Dr. Chenghao Wang (chenghao.wang@ou.edu) by **Nov 25, 2023** (Fall 2024 admission), and attach (1) a copy of your **CV**, (2) a **brief statement** that highlights your interest (and skills and previous research experience when applicable) relevant to the position description, and (3) a copy of unofficial **academic transcripts** and TOEFL/IELTS/PET/DET transcripts (when applicable). Review of applications will begin immediately and continue until the position is filled.

Admission requirements:

- OU Graduate College: <https://www.ou.edu/gradcollege/apply/before-you-apply>
- International applicants: <https://www.ou.edu/gradcollege/apply/international-applicants>
- OU School of Meteorology: <http://meteorology.ou.edu/academics/prospective-graduate/how-to-apply/>
- OU Department of Geography and Environmental Sustainability: <https://www.ou.edu/ags/geography/degree-programs/graduate-program/prospective-graduate-students>

About the SURF Lab:

The SURF Lab at the University of Oklahoma examines the mechanisms of urban environments, their interactions with regional and global climates, and their impacts on building energy use, carbon emissions, and public health using numerical models and data analytics. Through our interdisciplinary research, we aim to advance the understanding of the urban environment and support more sustainable urban development under global environmental changes. Our research has been funded by multiple agencies including the U.S. Department of Energy (DOE), National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA), National Aeronautics and Space Administration (NASA), and the U.S. Environmental Protection Agency (EPA). More information about ongoing research can be found here: <https://sites.create.ou.edu/chenghaowang/>.

About the University of Oklahoma:

Founded in 1890, the University of Oklahoma is a public research university located in Norman, Oklahoma just 20 minutes south of Oklahoma City metropolitan area. The university is classified among “R1: Doctoral Universities – Very high research activity”. The School of Meteorology is the largest such program in the nation and is routinely ranked near the top of the nation. More information regarding the university and available degree programs can be found here: <https://sites.create.ou.edu/chenghaowang/about/>.

For further information, please contact Dr. Wang (chenghao.wang@ou.edu).