Texas Tech University and the Atmospheric Hazards Strategic Initiative 9-Month Tenure Track Position (Open Rank) in the area of Data Science in the field of Atmospheric Sciences

About the University:

Established in 1923, Texas Tech University is a Carnegie R1 (very high research activity) Doctoral/Research-Extensive, Hispanic Serving, and state-assisted institution. Located on a beautiful 1,850-acre campus in Lubbock, a city in West Texas with a growing metropolitan-area population of over 300,000, the university enrolls over 40,000 students with 33,000 undergraduate and 7,000 graduate students. As the primary research institution in the western two-thirds of the state, Texas Tech University is home to 10 colleges, the Schools of Law and Veterinary Medicine, and the Graduate School. The flagship of the Texas Tech University System, Texas Tech is dedicated to student success by preparing learners to be ethical leaders for a diverse and globally competitive workforce. It is committed to enhancing the cultural and economic development of the state, nation, and world.

Referred to as the "Hub City" because it serves as the educational, cultural, economic, and health care hub of the South Plains region, Lubbock boasts a diverse population and a strong connection to community, history, and land. With a mild climate, highly rated public schools, and a low cost of living, Lubbock is a family-friendly community that is ranked as one of the best places to live in Texas. Lubbock is home to a celebrated and everevolving music scene, a vibrant arts community, and is within driving distance of Dallas, Austin, Santa Fe, and other major metropolitan cities. <u>Lubbock's Convention & Visitors Bureau</u> provides a comprehensive overview of the Lubbock community and its resources, programs, events, and histories.

About the College:

Founded in 1925 as one of the university's four original colleges, the <u>College of Arts & Sciences</u> is comprised of 15 departments and one program, offering a wide variety of courses and programs in the humanities, social and behavioral sciences, mathematics, physical sciences, and natural sciences. The College has approximately 10,000 students enrolled representing more than a quarter of the overall Texas Tech University student population while maintaining a 22:1 student to faculty ratio

About the Department:

The <u>Department of Geosciences</u> offers BS and BA degrees in Geosciences, and, Geography and the Environment, MS degrees in Geosciences, Geography and the Environment, and Atmospheric Sciences, and a PhD; we also offer certificates in GIST. Our ~35 tenure-track faculty and instructors serve ~100 graduate students and ~130 undergraduate majors. Our research profile transcends the fields of Earth and Atmospheric Sciences, with a growing emphasis on societal impact of Earth-systems.

The Atmospheric Science program emphasizes study of the physics of the atmosphere with observations and modeling across the traditional subdisciplines of meteorology and related atmospheric hazards. Students and faculty routinely engage in field work and research-to-operations activities with national and international impact. The National Wind Institute is an interdisciplinary center at the intersection of atmospheric science, wind and energy engineering, and measurement systems, and maintains laboratories, a research field site, and mobile and fixed-site observing instrumentation, including the growing 168-station West Texas Mesonet.

Position Description:

The Department of Geosciences in the College of Arts & Sciences and the National Wind Institute (NWI) at Texas Tech University invites applications for a full-time, 9-month, tenure-track or tenured Professor of open rank, commensurate with experience, to begin 1 September 2026.

Atmospheric hazards are becoming more frequent and more intense in a warming world. Growing resilient communities is a national priority. NWI has been expanding its effort to mitigate atmospheric hazards through the synthesis of the physical, social, data dimensions of the problem over a multi-year strategic hiring initiative.

In line with these initiatives, we seek applications from Atmospheric Scientists with experience using artificial intelligence/machine learning to extend Numerical Weather Prediction to advance physical/mathematical understanding of the atmosphere, implementing a working philosophy of using statistical/empirical methods alongside the laws of physics. Candidate should be familiar with a wide range of observational and model datasets and observation-model linkages, and modern data infrastructure, metadata, and open scientific software stacks that interface with industry and cloud efforts. Curricular interest in teaching and mentoring in discipline-relevant aspects of scientific computing and community/open-source scientific software is a plus. The candidate must be willing to work within a multi-disciplinary group to develop engineering solutions and socially actionable strategies and plans that contribute to a reduction in the impact of atmospheric hazards on society

Major/Essential Functions:

In line with TTU's strategic priorities to engage and empower a dynamic student body, enable innovative research and creative activities, and transform lives and communities through outreach and engaged scholarship, applicants should have experience working with a breadth of student populations at the undergraduate and/or graduate levels within individual or across the areas of teaching, research/creative activity, and service.

As a faculty member in the Department of Geosciences, you will be expected you will be expected to: 1) contribute to the teaching mission of the department; 2) mentor graduate students; 3) develop a record of peer-reviewed research; 4) build an externally funded research program; and 5) provide service to the department, college, and university and your professional community.

Required Qualifications:

- 1. Completion (by the time of the appointment) of a Ph.D. in Atmospheric Sciences or a related field.
- 2. The ability to develop and sustain a vibrant, nationally recognized and externally funded research program.
- 3. Demonstrated potential for mentoring M.S. and Ph.D. students.
- 4. A documented record or demonstrated potential for teaching graduate and undergraduate Atmospheric Sciences course work in their area of expertise.
- 5. A demonstrated interest in working within a multi-disciplinary group to develop scientific, engineering, and socially actionable strategies that contribute to a reduction in the impact of atmospheric hazards on society.

Preferred Qualifications:

In addition to the required qualifications, individuals with the following preferred qualifications are strongly encouraged to apply:

- 1. A background in artificial intelligence/machine learning and atmospheric modeling and prediction.
- 2. Research interests that harness artificial intelligence/machine learning to advance the prediction of severe storms, flooding events, and other high-impact weather hazards.
- 3. Interest in translating the scientific state of the art into operational and public safety settings, especially in multi-hazard scenarios.
- 4. Experience creating and efficiently managing very large datasets within the constraints of modern high-performance computing systems and/or cloud infrastructure.
- 5. Demonstrated success with and/or linkages to coordinated national and international artificial intelligence/machine learning and modeling initiatives.

Safety Information:

Adherence to robust safety practices and compliance with all applicable health and safety regulations are responsibilities of all TTU employees.

Equal Opportunity Statement:

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, age, disability, genetic information or status as a protected veteran.

Special Instructions to Applicants:

Please include the following documents in your application:

- Cover Letter
- 2. Curriculum Vitae
- 3. Three equally important statements that describe (a) research experience and future goals, including a 5-year plan for establishing and maintaining and recognized and well-funded research program, (b) a plan for excellence in teaching and student mentorship in research, and (c) a statement of interdisciplinary vision related to Texas Tech's Atmospheric Hazards strategic initiative.
- 4. The name and contact information of up to 4 colleagues who may be willing to provide a letter of recommendation.

Questions about this position should be directed to Dr. Brian Ancell, Search Committee Chair at brian.ancell@ttu.edu. If you need assistance with the application process, contact Human Resources, Talent Acquisition at hrs.recruiting@ttu.edu or 806-742-3851.

Application Process

The deadline to submit applications is on 15 February 2026.

To ensure full consideration, please complete an online application at: https://rb.gy/mx79qr applying to requisition 42556BR.