

Postdoctoral Fellowship Position

The University of Texas at Austin is recruiting new or recent Ph.D. scientists or engineers for a postdoctoral fellowship position focused on developing integrated models. This position is part of a campus-wide research initiative with support from both The Jackson School of Geosciences and Texas Advanced Computing Center. Research activities center on resilience at regional scales as applied to challenges faced by Texas from future climate and population shifts across the state.

Position: Development of Integrated Models for Complex Human and Natural Systems

We are interested in outstanding postdoctoral fellowship applicants with the following qualifications:

- Formal training in Earth sciences, engineering, and/or computational/analytical sciences.
- Experience in development of integrated modeling of complex human and natural systems is required, with an understanding for how the results will inform planning for resiliency.
- Computational proficiency across an array of tools and platforms and processes are required.
- Deep understanding of fundamentals of numerical analyses and the ability to bridge a range of research disciplines are required.
- Experience in running simulations in parallel or in high performance computing environments is a plus.
- Practical experience in applied problem solving is a plus.
- Familiarity with decision, systems, or agent-based modeling techniques or machine learning approaches are also a plus.

The position will support a new broad research initiative at the University of Texas at Austin called *Planet Texas 2050* (<https://bridgingbarriers.utexas.edu/planet-texas-2050/>). The goals of *Planet Texas 2050* are to improve our understanding of the synergistic impacts of climate change and rapid population growth on availability and equitable distribution of Texas' vital resources, to advance our ability to project future impacts, and to plan for more resilient infrastructure. **Underpinning those research goals is the development of an integrated modeling platform** that will help build scenarios for Texas' 21st century urban centers and inform policy. The successful candidate is expected to play a key role in **visioning and developing** this platform through the assessment of a range of existing models. This multi-year, interdisciplinary initiative will provide substantial opportunities for the candidate to collaborate with existing and new faculty and researchers across the UT Austin campus and beyond.

Austin is often on the list of top places to live in the U.S. The Jackson School of Geosciences is one of the top ranked programs in the US for geosciences, and #8 in computer sciences. Texas Advanced Computing Center designs and operates some of the world's most powerful computing resources and technologies to enable discoveries that advance science and society. This position has the potential to transition into a permanent Research-track position at UT Austin.

Please send a resume/CV, a short expression of interest and 3 references to:
Michael Young, Bureau of Economic Geology (michael.young@beg.utexas.edu)
Jay Banner, Department of Geological Sciences (banner@jsg.utexas.edu);
Suzanne Pierce, Texas Advanced Computing Center (spierce@tacc.utexas.edu)

Review of applicants will begin on December 15 and continue until the position is filled. This position will be based in the Texas Advanced Computing Center and in the Department of Geological Sciences on UT Austin's main campus. The University of Texas at Austin is an equal employment opportunity/affirmative action employer. All positions are security sensitive, and conviction verification is conducted on applicants selected.