AI for Environmental Resilience
University of Utah

Job Title	AI for Environmental Resilience
Department	Civil & Environmental Engineering
	https://www.sci.utah.edu/
Institution	University of Utah
	Salt Lake City, Utah
Date Posted	Oct. 9, 2025
Application Deadline	Nov. 15, 2025
Position Start Date	Jul. 1, 2026
Job Categories	Assistant Professor
	Associate Professor
	Professor
Academic Field(s)	Ecological and Environmental
	Civil Engineering
Job Website	https://rai.utah.edu/
Apply By Email	

Job Description

Global ecosystems are undergoing unprecedented transformations driven by the rising demand for water, energy, and critical minerals. These changes are rapidly altering the Earth system, including land, air, and water, and influencing human systems, such as public health, epigenetics, migration, politics. A growing wealth of observational data from satellites, sensor networks, foundation models, gridded weather and reanalysis, socio-economic databases, and other multi-scale technologies is enabling a higher-fidelity view of the Earth system than ever before. Combing this ever-expanding ecosystem of data with advanced computational techniques, particularly the ethical and sustainable use of AI, is of high priority. The University of Utah, under the leadership of the One-Utah Responsible

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AI Initiative (One-U RAI,https://rai.utah.edu/), is building a new group to address a broad range of environmental challenges and opportunities created by AI by leveraging, integrating and enhancing existing strengths in earth and environmental science, biological science, social science, modeling and computation.

We seek candidates with demonstrated expertise in environmental impact monitoring and/or the use of emerging datasets to advance Earth system modeling, forecasting, and projection. Relevant systems and data may span air, water, climate, and pollution across scales from molecular to ecosystem, and include monitoring the environmental impacts of AI (e.g., data centers, energy usage, critical minerals). Methodological strengths may include machine-learned physics models, AI-based model parametrization, multi-model and multi-fidelity ensemble approaches, surrogate models (e.g., reduced-order or digital twins), and modern data assimilation and fusion techniques. We welcome candidates with expertise in advanced computational, machine learning, or AI methods; computational social sciences; or the environmental consequences of AI, and highly value experience with ethical data practices—such as FAIR/CARE data stewardship supporting AI-ready, accessible archives—as well as energy- and carbon-aware high-performance computing. Candidates should articulate a clear vision for building interdisciplinary partnerships that position the cluster to address emerging challenges in environmental resilience over the coming decades.

Application areas include, but are not limited to: development of new computational methodologies; AI model bias and interpretability; community-centered, collaborative, and participatory AI; AI-based decision support systems; data sovereignty in environmental monitoring; environmental impacts of AI deployment, including eco-ethical considerations, resource use, AI-driven stewardship, and indigenous-led AI tools; improvement of sub-seasonal to decadal projections of climate impacts and extremes (e.g., heatwaves, droughts, atmospheric rivers, wildfires, coastal flooding); translation of projections into decision-support tools for urban design, resilient infrastructure, public health preparedness, and equitable planning; and application of AI to enhance climate mitigation modeling, scenarios, and tools.

Qualified candidates may have research interests across the globe, and an interest in developing a research program in Utah and the Intermountain West. A doctoral degree in environmental or climate science, environmental studies, environmental engineering, applied math, biology, geological science, geography, urban planning, law, ethnic studies, science and technology studies (STS), communication, business, computational science, or related fields is required by July 1, 2026.

The One-U RAI housed within the Scientific Computing and Imaging (SCI) Institute at the University of Utah is growing and pursuing multiple new faculty hires over the next 5 years. These hires will expand the core research expertise in responsible and translational AI within three thematic areas: environment, healthcare and wellness, and teaching and learning. A major goal is to attract new

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partnerships across the University and beyond. Candidates whose research expertise integrates social and technical aspects are of particular interest.

This specific recruitment is for a tenured position at the Assistant, Associate or Full Professor level to begin in Fall 2026. The successful candidate will have a research appointment with the Scientific Computing and Imaging (SCI) Institute at the University of Utah and their tenure home in one of the following participating colleges and departments: College of Architecture + Planning: Department of City and Metropolitan Planning; College of Business: Departments of Operations & Information Systems and Quantitative Analysis of Markets and Organizations (QAMO); John and Maria Price College of Engineering: Department of Civil and Environmental Engineering; College of Humanities: Divisions of Ethnic Studies and Gender Studies; College of Law; College of Science: School of Biological Sciences, Departments of Atmospheric Sciences and Geology & Geophysics; College of Social and Behavioral Science: Schools of Environment, Society & Sustainability and Public Affairs and Departments of Anthropology, Economics, and Sociology & Criminology. We seek a colleague with a commitment to excellence in teaching and demonstrated ability to obtain research funding and publish high-quality peer-reviewed research. We are especially interested in candidates who can contribute to our university's Strategy 2030 and the One-U RAI.

About the SCI Institute

The SCI Institute is a transdisciplinary, research-focused partnering entity at the University of Utah, comprising faculty from four academic colleges, as well as students and staff (185 current personnel). The SCI Institute's vision is to advance translational computing and data to enable the transformation across disciplines in a way that benefits the University of Utah and society at large. Its mission is to advance computation and data science to catalyze research excellence and discovery in diverse domains applied to multidisciplinary and interdisciplinary problems of societal importance. The Institute accomplishes these goals through the collaborative development, deployment, and application of software systems and tools for applied scientific and data computing, imaging, and visualization.

Over more than three decades, the SCI Institute has established itself as an internationally recognized leader in translational innovations across computational and data science, with leading research and training programs in the areas of visualization, scientific and biomedical computing, and image analysis applied to a broad range of challenging problems.

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Alongside its research goals is a passion to educate students and staff. The SCI Institute is proud to have supported over 400 graduate students and postdoctoral fellows and nearly 100 undergraduates to achieve an education at the cutting edge of research. Additional information about the Institute and current faculty can be found at sci.utah.edu.

About the University

The University of Utah is a Carnegie Research I Institution. Located in metropolitan Salt Lake City in the foothills of the Wasatch Mountains, the University of Utah is the state's flagship research institution and emphasizes exceptional scholarship, quality teaching, and professional service. The university serves over 32,000 students from across the U.S. and the world with over 72 major subjects at the undergraduate level and more than 90 major fields of study at the graduate level, including law and medicine. Known for its proximity to seven world-class ski resorts within 40 minutes of campus, the University of Utah encourages an active, holistic lifestyle, innovation, and collaborative thinking to engage students, faculty, and business leaders. The University of Utah provides a generous benefits package with a variety of medical and dental plans from which to choose. Other important benefits include retirement, tuition reduction, a wellness program, and an Employee Assistance Program.

Salt Lake City is a vibrant, major metropolitan area with a diverse, multicultural population and numerous cultural and outdoor activities. Utah and the stunning Salt Lake Valley are undergoing robust economic growth with one of the Nation's fastest-growing technology sectors, and the University of Utah is acclaimed for its successes in technology-driven start-ups. The University has invested significantly in the SCI Institute, and substantial further investments are now enabling these recruitments.

Salt Lake City is home to a robust array of diverse communities, facilitating numerous opportunities for interaction with a range of civic and political organizations, given the city's role as the governmental and social nerve center of the state. Utah public schools serve a diverse student body (statewide average: eight percent ELs and twenty-six percent non-white), notably higher in its urban districts. Utah is also home to the first state-legislated and funded K-16 dual language education model in the country.

The University of Utah is an Equal Opportunity/Affirmative Action employer and educator. Minorities, women, veterans, and persons with disabilities are strongly encouraged to apply. Veterans' preference is extended to qualified veterans. Reasonable disability accommodations will be provided with appropriate notice. For additional information about the University's commitment to equal opportunity and access. For more details see: http://www.utah.edu/nondiscrimination/.

The University of Utah values candidates who have experience working in settings with students from

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diverse backgrounds and possess a strong commitment to improving access to higher education for historically underrepresented students.

Responsibilities:

- Developing and maintaining an ongoing program of scholarly research that involves computational methods and visualization of data for application within climate modeling and forecasting, environmental monitoring, or environmental impact of AI development;
- Developing meaningful collaboration with faculty in SCI, one of the aforementioned home departments, and other academic departments and research centers (e.g., Wilkes Center for Climate Science and Policy, the NSF WIRED Global Center and the Global Change and Sustainability Center), as applicable, to promote the integration of AI;
- Meeting the teaching requirements in the candidate's chosen academic department;
- Engaging as a member of the SCI Institute faculty;
- Training and mentoring undergraduate and graduate students;
- Developing and submitting research funding proposals to national agencies and foundations;
- Developing partnerships, and commercialization opportunities to drive excellence and innovation in AI-enhanced research;
- Conducting and publishing rigorous research topics aligned with climate impacts forecasting or environmental monitoring;
- Collaborating in transdisciplinary teams to evaluate and improve AI design, development, and use in climate impacts forecasting or environmental monitoring;
- Promoting responsible AI by incorporating responsible AI principles and applications;
- Developing and sharing AI data and tools;
- Securing funding, partnerships, and commercialization opportunities to drive excellence and innovation in AI-enhanced research;
- Sharing expertise in translational responsible AI through speaking engagements, including those hosted by the One-U RAI;
- Participating in monthly cluster-related team building and research activities; and Participating in faculty governance at the department, college, and university levels.

Qualifications:

- A doctoral degree in environmental or climate science, environmental studies, environmental engineering, applied math, biology, geological science, geography, urban planning, law, ethnic studies, science and technology studies (STS), communication, business, computational science, or related fields is required by July 1, 2026.
- Record of or demonstrated interest in interdisciplinary research and collaboration.

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- Experience in the application of AI in the relevant thematic area(s).
- Excellence in teaching and mentorship.
- Demonstrated ability to secure research funding and manage research projects.
- Demonstrated commitment to responsible and ethical AI practices.
- Expertise in evaluating the ethical implications of AI in the relevant thematic area(s).

All faculty are expected to conduct research and/or creative work within an R1 university setting. The university policy defining career-line vs. tenure-line faculty is linked here: https://regulations.utah.edu/academics/6-300.php.

The review of applications will begin on November 15, 2025.

Inquiries regarding the position may be directed to the Search Committee Co-Chairs, Akil Narayan (akil.narayan@utah.edu) and Simon Brewer (simon.brewer@ess.utah.edu).

Special Instructions for Candidates

Qualified applicants must submit: A letter of intent including research and teaching interests; Curriculum vitae; Teaching philosophy statement; References will not be contacted prior to receiving the candidate's consent to contact. Candidates may be asked to provide additional information during the search process.

Job Postings: Assistant/Associate Professor in AI for Environmental Modeling/Forecasting (PRN01408CF): https://utah.peopleadmin.com/postings/189820

Associate/ Full Professor in AI for Environmental Monitoring (PRN01409CF): https://utah.peopleadmin.com/postings/189819

EEO/AA Policy

The University of Utah is fully committed to affirmative action and to its polices of nondiscrimination and equal opportunity in all programs, activities and employment with regard to race, color, national origin, sex, age, status as a person with a disability, religion, sexual orientation and status as a veteran or disabled veteran. The University seeks to provide equal access to its programs, services and activities for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Evidence of practices not consistent with these policies should be reported to the Office of Equal

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Opportunity and affirmative Action (801) 581-8365 (V/TDD). The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and possess a strong commitment to improving access to higher education for historically underrepresented students

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Akili Narayan
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Salt Lake City, UT

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