

ARIZONA STATE UNIVERSITY
An Equal Opportunity/Affirmative Action Employer

POSITION DESCRIPTION:

Postdoctoral Research Scholar

Overview:

The School of Geographical Sciences and Urban Planning (SGSUP) at Arizona State University (ASU) seeks applications for a Postdoctoral Research Scholar with an anticipated start date of October 15, 2020 and preferably should be filled as soon as possible. The full-time, fiscal-year, non-tenure-track, benefits-eligible position is for one year with renewal anticipated based on funding and performance. Candidates must be within five years from receipt of their doctoral degree.

The postdoctoral scholar will work in the Cyberinfrastructure and Computational Intelligence Lab (CICI) under the supervision of Professor Wenwen Li. The scholar will play key roles in multiple NSF research projects related to geographic information science, cyberinfrastructure, knowledge graph, GeoAI, machine learning and their applications to climate analytics, drinkable water resource management and food supply chain analysis. Specific responsibilities include: conducting research on cross-domain knowledge graph and developing cutting-edge visualization and GeoAI techniques to deliver big graph and other scientific datasets to end users of different needs; preparing high quality, peer-reviewed publications; presenting research findings at project and professional meetings; and assisting the PI to advise undergraduate and graduate students on the projects. More information about CICI can be found here: <http://cici.lab.asu.edu>

The position will be housed at ASU's Tempe campus. The Tempe campus has approximately 60,000 students and is located in the rapidly growing metropolitan Phoenix area, which provides a wide variety of recreational and cultural opportunities and is especially desirable for outdoor enthusiasts who enjoy biking, hiking, skiing, and other activities in the exquisite Arizona canyon lands and rugged terrain.

The College of Liberal Arts and Sciences (<https://thecollege.asu.edu/faculty>) at ASU values cultural and intellectual diversity, and continually strives to foster a welcoming and inclusive environment. We are especially interested in applicants who can strengthen the College diversity of the academic community.

Job Description:

SGSUP is seeking to fill one Postdoctoral Research Scholar appointment that will contribute to research that improves data-driven decision making and data analytics through cyberinfrastructure, big data and knowledge graph. The scholar will work with a diverse team of researchers from across environmental and social sciences, as well as academia, industry and governments to build a cross-domain knowledge graph for open data sharing, search, integration, analysis, visualization, intelligent question answering and beyond.

The Postdoctoral Research Scholar will help design and execute research using a combination of machine learning, spatial database, image (and text) analysis, high performance computing, and visual analytics to address big data challenges in the geospatial domain.

Essential Duties:

- Perform research and development related to cyberinfrastructure, big data analytics and knowledge graph.
- Disseminate research outcomes in high-impact, peer-reviewed publications and professional conferences
- Assist in grant proposal writing
- Provide guest lectures as appropriate and consistent with expertise for graduate/undergraduate courses
- Participate in all group meetings and workshops

Minimum Qualifications:

- A Ph.D. in geography, earth science informatics, GIScience, computer science, or a related field by the time of appointment.
- Demonstrated record of scientific publication in the fields of GIScience and informatics
- Strong research and engineering skills in GIScience
- Demonstrated verbal and written communication skills (in English)

Desired Qualifications:

- Programming skills (e.g., java, javascript, python)
- Strong research and development skills in one of the following areas: WebGIS, GeoAI, knowledge graph, computer vision, information retrieval and/or natural language processing
- Demonstrated experience in machine learning and use of high-performance computing or cloud resources
- Familiarity with spatial databases (i.e. PostGreSQL), graph databases (i.e. RDF4j), machine learning algorithms, platforms (i.e. Keras) and libraries (i.e. SciKit-learn)

To Apply:

Initial deadline for accepting applications is October 5, 2020. If not filled, reviews will occur every week thereafter until the search is closed. To apply, candidates must submit the following materials online at Interfolio <http://apply.interfolio.com/78981>

- A Statement of Research Interests (not to exceed 2 pages)
- A complete Curriculum Vitae including a list of publications
- Up to 3 related publications
- Contact information for three references (including name, phone number and email)

This is a paperless search, and only materials submitted electronically as outlined above will be considered. Questions related to the search may be addressed to Professor Wenwen Li (Wenwen@asu.edu).

A background check is required for employment

Arizona State University is a VEVRAA Federal Contractor and an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability, protected veteran status, or any other basis protected by law. Women and minorities are encouraged to apply. Further information on ASU's policies can be found at

<https://www.asu.edu/aad/manuals/acd/acd401.html> and its complete non-discrimination statement at <https://www.asu.edu/titleIX/>.

In compliance with federal law, ASU prepares an annual report on campus security and fire safety programs and resources. ASU's Annual Security and Fire Safety Report is available online at <https://www.asu.edu/police/PDFs/ASU-Clery-Report.pdf> You may request a hard copy of the report by contacting the ASU Police Department at 480-965-3456.