

Advertisement: Postdoctoral Associate in GeoAI

Position Summary: Department of Geography, University of Georgia, Athens, invites applications for a postdoctoral candidate in Geospatial Artificial Intelligence (GeoAI) beginning January 2023. The position is a fiscal year (12-month) with the possibility of extension, non-tenure track appointment, and the salary is competitive and commensurate with qualifications and experience. The successful candidate will participate in a funded project developing advanced remote sensing data fusion and analytics methods using multi-modal and multi-sensor data streams for continual terrain awareness.

Responsibilities: The postdoctoral associate will work with a large team of undergraduate and graduate students on a project to design, develop and demonstrate a robust terrain awareness system from multiple high-resolution satellite and UAV data sources using photogrammetric theory, Structure from Motion (SfM) techniques, and advanced data analytics models (DNN, SLAM, feature extraction, pose estimation). The terrain awareness system will be tested and applied to a few target geographies (Coastal, Arctic, Tropical, and Desert) used throughout the larger project. There will be four field trips annually to acquire UAV data from different geographic regions for model development and testing. The successful candidate will supervise undergraduate students' research, oversee the day-to-day activities of the project, and prepare monthly and annual reports for the funding agency.

Required qualifications: In addition to a PhD degree in Geography (remote sensing, photogrammetry, GeoAI), Earth Science, Computer Science, Engineering, or other related fields with a strong publication record, the researchers must have proven abilities to conduct related research projects and to work as part of a scientific team. Experience in high-level satellite image processing and photogrammetric techniques such as object detection, feature matching, bundle adjustments, SfM, SLAM, and visual odometry, pose estimation, and programming, deep learning, and handling large datasets is necessary. Experiences in mainstream deep learning frameworks (e.g., PyTorch, TensorFlow) and photogrammetric and visualization tools (Agisoft Metashape or Blender) are welcome. Strong written and verbal communication skills are required. Professional development opportunities in teaching and grant writing will be provided through various teaching workshops on campus.

The candidate will join the Mishra Lab in the Department of Geography at the University of Georgia and work closely with co-investigators from the Department of Computer Science. The candidate will also be a part of UGA's Small Satellite Research Laboratory (<http://smallsat.uga.edu>).

The positions will include retirement and health benefits. Interested candidates should apply online through UGA Jobs at <https://www.ugajobsearch.com/postings/291326>. Any questions about the position should be directed to Dr. Deepak Mishra (dmishra@uga.edu), Department of Geography, The University of Georgia, Athens, GA 30602. Review of applications will begin immediately and continue until the position is filled. The University of Georgia values diversity and all qualified applicants are encouraged to apply. UGA is in Athens, GA, a vibrant mid-sized city with abundant shopping, restaurants and cultural experiences.