

## Geospatial Data Analyst

### Illinois State Geological Survey Prairie Research Institute University of Illinois at Urbana-Champaign

The Illinois State Geological Survey (ISGS) is seeking an individual to develop and manage digital geographic data within a geographic information system (GIS) and collaborate with others in the map creation and publication process. The individual will work within the Quaternary and Engineering Geology Section, a team dedicated to basic and applied research related to the geology, history, climate, and ecology of recent geologic time, as well as the application of the geologic sciences to the practical problems of engineering and natural hazards. The ISGS, which is part of the Prairie Research Institute at the University of Illinois at Urbana-Champaign, is located in the Natural Resources Building on the University's 700-acre campus. The ISGS is a premier state geological survey serving the needs of Illinois with earth science information relevant to the state's environmental quality, economic vitality, and public safety.

**Responsibilities:** Create, develop, update, compile, and maintain digital maps and geospatial data and databases using GIS, graphics, layout, and database software. Compile and manipulate digital data to aid staff in geologic mapping and other geologic analyses requiring geospatial data. Produce hardcopy geologic and derivative maps, cross sections, and other custom map products and components in accordance with ISGS cartographic standards or policies. Create other graphics and figures from new and existing geospatial data for use by other staff in maps, presentations, posters, journals, exhibits, and other publication or display venues. Resolve conflicting geospatial information: ensure standardization, consistency, and quality of data through established protocols. Work with other staff to develop 3D map products, and participate in the development of 3D modeling capabilities. Program custom scripts and develop GIS tools to enhance the display, visualization, and mapping of three-dimensional geologic and geographic data and to streamline workflows. Develop procedures for implementation of custom scripts and tools and other GIS workflows. Prepare and compile comprehensive and detailed metadata for geospatial data and documentation of custom scripts and tools, including description of their use in workflows. Demonstrate continuous effort to improve operations, decrease turnaround times, and streamline work processes by learning and applying new technology and software. Meet with colleagues in order to develop project requirements, identify and coordinate user needs, design and revise project deliverables, gather and share information, and solve problems. Attend, participate in, and give presentations at professional meetings and public forums. Work with the ISGS liaison between the Survey and local government agencies regarding data sharing agreements and exchange of geospatial information. Operate peripheral hardware including scanners and large-format plotters. **Qualifications:** Bachelor's degree in geography, natural resources, or related discipline. Master's degree is preferred. Knowledge of earth science and principles of cartography. Knowledge of GIS software (preferably ArcGIS) and graphics (preferably Adobe Creative Suite) software and database, geospatial, and graphic data and file formats. Knowledge of basic principles of relational databases and software such as MS Access. Level of knowledge and ability to learn new graphics and GIS software as needed with minimal instruction; ability to troubleshoot GIS software and data to solve GIS problems. Ability to create compelling publication quality graphics from geospatial data. Ability to develop custom scripts or software tools that enhance functionality of ArcGIS. Detail-oriented and able to implement technical standards, specifications, and techniques consistently and accurately. Ability to provide detailed written documentation including metadata, software instructions, standards, and specifications in a clear, concise, and well-structured manner. Ability to use hardware peripherals such as scanners, plotters, and printers. Ability to work independently. Ability to prioritize, accomplish tasks, and meet deadlines. Good communication skills to establish friendly, open, and clear communication with others. Ability and willingness to effectively contribute as part of a team.

This is a regular full-time academic professional position. The starting date is negotiable after the closing date. Salary is commensurate with experience.

Applications must be received by September 27, 2013. To apply, all candidates must submit an online profile through <https://jobs.illinois.edu/> by the close of the posting period. Qualified candidates must upload a letter of application which details qualifications noted above, a résumé, and the names, addresses, phone numbers, and e-mail addresses of three professional references. Applicants are strongly encouraged to include in their résumés Internet links to examples of their current GIS and related projects and a brief description of their level of responsibility for each project. All requested information must be submitted for your application to be considered. Incomplete information will not be reviewed. For further information please contact Lori Walston-Vonderharr, Human Resources, Illinois State Geological Survey, at [lwalston@illinois.edu](mailto:lwalston@illinois.edu) or 217-244-2401.

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