



GIS Specialist in Education and Practice (Applications Support Analyst 2)

Reporting to the Program Head of GIS and Statistical Software Services, the GIS Specialist in Education and Practice promotes and facilitates the use of the Libraries' GIS services at MIT. The successful candidate will develop and implement practices that prioritize an open scholarship agenda that accelerates the progress of humanity and promotes equity and inclusion across disciplines.

The incumbent works closely with other departmental personnel to provide one-on-one research consultation, staff regularly scheduled GIS help hours, design and provide training sessions to the MIT research community, and contribute to running the GIS & Data Lab. This person holds primary responsibility for data ingestion and subsequent curatorial activities in maintaining the geospatial repository; identifying and evaluating datasets for acquisition; and maintaining GIS tools.

The GIS Specialist in Education and Practice advances the use of GIS and other tools for data visualization. These activities are carried out in alignment with user centered design, accessibility practices, the MIT Libraries' *New Urgency Vision*, and principles of equity, diversity, inclusion, and social justice (EDISJ).

RESPONSIBILITIES:

Specific responsibilities include:

GIS & Data Lab Support (50%)

- Acting as a specialist for geographic information systems (GIS) on behalf of the Libraries to promote and facilitate the use of GIS at MIT.
- Providing frontline reference and one-on-one research consultation support to a broad user community practicing GIS. This support includes: regularly scheduled GIS help hours, assisting with management of the GIS Help email queue, researching answers to questions, and designing and providing training sessions for the MIT research community.
- Providing support of the GIS & Data Lab area and, in collaboration with Library ITS and IS&T colleagues, the associated computer systems.
- Collaborating on the installation, maintenance, and troubleshooting of GIS software and associated data processing tools in the GIS & Data Lab with colleagues from ITS and Licensing
- Keeping current on geospatial analysis tools, (e.g., qgis, leaflet, spatial analysis in R, etc.) and sharing knowledge with other Libraries staff.
- Designing and providing training and consultation on Python tools that enable our user community to increase effectiveness and support automation of geospatial data processing.
- Collaborating on data visualization assistance and instruction with departmental staff.

GIS data processing and metadata (20%)

- Geospatial repository and related tools:
 - Leading Geodata repository data evaluation, metadata creation, data loading and troubleshooting of data loading.
 - Maintaining all documentation on geospatial metadata writing and data loading for the geospatial repository.
 - Assisting the Head, GIS and Statistical Software Services and Libraries' Software Engineers with maintaining the geospatial repository and associated tools.
- Geospatial data acquisition:
 - Discovering and documenting sources for free and open geospatial data
 - Coordinating with geospatial librarians, selectors, and others in the MIT community interested in geospatial data to identify potential geospatial data purchases that expedite our efforts to maximize digital access to content and services;
 - Working with the GIS and Data Librarian to evaluate quality and value of data being considered for purchase.
- Helping to maintain user self-help GIS tools, including associated websites.
- Maintaining currency with scripting and software related to geographic analysis. Assisting in learning and introducing new versions of Python code modules GIS software, particularly those that support automated geospatial data processing.
- Assisting with developing geospatial/GIS projects for the Libraries to enhance access to traditional collections.

Collaboration and Instructional Initiatives (30%)

- Working with members of the GIS team and other Libraries' collaborators, develop and deliver instructional content for general and targeted workshops.
- Developing, proposing, and leading new projects in the incumbent's area of interest and expertise that support the Libraries' strategic and organizational goals. These projects may lead to new initiatives in the GIS group and/or the GIS and Data Lab.
- Participate actively in system-wide initiatives and serve on committees and task forces and is expected to communicate actively with fellow professionals through research, writing or presentations, and/or professional service activities.

QUALIFICATIONS:

Required:

- Bachelor's degree in Geography, Urban Planning, Ecology, Engineering, Computer Science, Remote Sensing or related field.
- Minimum three years related work experience.
- Proficiency with desktop GIS and online mapping software, e.g., ArcGIS, QGIS, ArcGIS Online, Carto, etc.
- Demonstrated ability to write Python code using arcpy, GeoPandas, GDAL, or similar technologies.
- Interest in learning and using software, systems, geospatial data sources, and technologies to solve spatial problems and create data visualizations, and the ability to demonstrate these tools to others.
- Demonstrated ability to develop and deliver instructional content.
- Familiarity with GIS metadata standards and metadata writing.
- Ability to perform light cleaning tasks and shift lab furniture.
- Ability to shift computer equipment and manage associated wires and cables.

Preferred

- Experience with SQL, Geoserver, OpenLayers, Leaflet, or online mapping environments and ability to write Javascript code.
- Conversant with current and developing Geospatial technologies.
- Demonstrated capacity to plan, develop, and evaluate future programs and services.

We expect candidates to be stronger in some qualifications listed above than others; we are committed to helping our future colleague expand their skills, as well as learning from their areas of strength.

SALARY AND BENEFITS: This job is a Pay Grade 8 with the following salary range (min-mid-max):

\$69,100

\$91,580

\$114,065

The actual salary and pay grade will depend on qualifications and experience. MIT offers excellent benefits including a choice of health and retirement plans, a dental plan, tuition assistance, and fully subsidized MBTA passes for local bus and subway service. Flexible work arrangements, including flex-time and flex-place, are considered for positions that meet established criteria. The MIT Libraries is a collegial and supportive working environment and fosters professional growth of staff with management training and travel funding for professional meetings

APPLICATION PROCESS: Apply online at: <https://hr.mit.edu/careers>. Applications must include a cover letter and resume. Priority will be given to applications received by **April 14th, 2022**; position open until filled. MIT is strongly and actively committed to diversity within its community and particularly encourages applications from qualified women and minority candidates. Professionals who enthusiastically embrace the empathy, courage, self-reflection, and respect of a multi-cultural, diverse and inclusive workplace, and who strive to incorporate those values in their work and interactions are encouraged to apply. Please reach out to lib-hr@mit.edu with any questions regarding this role.

ABOUT THE MIT LIBRARIES:

The MIT Libraries support teaching, learning, and research across the Institute, with millions of resources, deep expertise, and five campus locations where our community consumes and creates knowledge. Our organization is on an exciting journey of transformation, pursuing a digital-first model for research libraries and prioritizing an open scholarship agenda. We aim to exercise bold leadership in defining a model for research libraries in the future, with innovative spaces like the newly renovated Hayden Library and a focus on supporting data-intensive and computational research and learning.

We strive to do great things, powering the MIT community to solve complex problems in the service of humankind, and each member of our 146-person staff has a role to play in pursuing that vision. We're constantly adapting to the rhythms of a changing world, and we welcome candidates who can help us do that in thoughtful and strategic ways that center our mission and values.

MIT Libraries is an environment that welcomes anybody, any mind — including all genders — and particularly encourages applications from underrepresented minorities, women, disabled applicants, and veterans. Professionals who enthusiastically embrace the empathy, courage, self-reflection, and respect of a multicultural, diverse, and inclusive workplace and who strive to incorporate those values in their work and interactions are encouraged to apply.