



This career compass provides options, tips, suggestions, and strategies for how a student can obtain critical skills, experiences, and competencies in order to launch their geoscience career based on their academic standing. The content herein is based on data from the U.S. Bureau of Labor Statistics, interviews with personnel in the occupation, and research on available student opportunities.












Job Summary

GIS professionals (technicians, analysts, developers, etc.) perform a variety of tasks that may include creating and managing spatial data sets, performing spatial analyses and preparing reports, generating and designing map products, and developing new software tools. Spatial data management is needed in almost every discipline, so GIS professionals come from and work in a variety of fields and in all job sectors (public, private, nonprofit, academic).

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Undergraduate

-  Clubs, student government, or geoscience professional societies
-  Hone skills through courses, community involvement, and conference presentations
-  Geoscience professional society conference or volunteer in organizations (GISCorps)
-  Geoscience or GIS professional society conference, membership, and virtual communities
-  Azavea Summer of Maps Fellowship
-  American Geographical Society (AGS), AAG, American Society for Photogrammetry and Remote, Sensing, Esri
-  U.S. Geospatial Intelligence Foundation
-  American Association of Geographers (AAG) scholarships and grants
-  Degree in geography, geosciences, computer science, engineering, or a natural or social science major incorporating GIS
-  Courses or minor in GIS
-  Research and field experience

Graduate/Master's

-  Events, activities, and technical sessions at conferences
-  Conference, membership, and virtual communities
-  Conference or volunteer in organizations (GISCorps)
-  Present research at a conference
-  Publish research
-  Departmental committee, clubs, student government, or professional society committees and student volunteer positions
-  AGS Council Fellowship, Azavea Summer of Maps Fellowship
-  AGS, AAG, American Society for Photogrammetry and Remote, Sensing, Esri
-  U.S. Geospatial Intelligence Foundation, Cartography and Geographic Information Society
-  AAG scholarships and grants
-  Degree in geography, geosciences, computer science, engineering, or other natural or social science major incorporating GIS coursework
-  Master's thesis related to application of GIS for analysis in a specific field or development of GIS software and techniques

Also applicable at Ph.D. level

Ph.D./Post-doc

-  Geoscience or GIS professional society conference, membership, and virtual communities
-  Events, activities, and technical sessions at professional society conference
-  Present research at conference
-  Publish research
-  Geoscience professional society conference or volunteer in organizations (GISCorps)
-  Departmental committee, clubs, student government, or professional society committees and student volunteer positions
-  U.S. Geospatial Intelligence Foundation, Cartography and Geographic Information Society
-  Degree in geography, geosciences, computer science, engineering, or other natural or social science major incorporating GIS coursework and research
-  Dissertation topic(s) related to application of GIS for analysis in a specific field or development of GIS software and techniques

Symbol Key

-  Attend
-  Communicate
-  Network
-  Participate
-  Leadership
-  Internship
-  Scholarship
-  Fellowship
-  Academics