Pursuing a Career in GIS: Education and Opportunities

A Career in GIS: Educational Requirements

The most essential educational requirements for a career in GIS are listed below.

- A BA or BS degree in geography. Degrees in geology, computer programming, political science, and even astrophysics are also useful.

- A cartography course. This is important for understanding and creating maps that effectively communicate geographic data.

- Instruction on GIS software packages, such as ArcGIS and MapInfo Professional.

- Database management and programming instruction, including instruction on how to create customized packages. Apart from the above, employers look for experienced individuals. Internships are very popular, and employers prefer to recruit interns to save on salary costs. Internships, though sometimes stressful, provide the best opportunities for newcomers to the field.

A Career in GIS: Opportunities

The GIS field offers a broad range of career opportunities, some of which are listed below:

- **GIS Digitizer Jobs**: These are the most common entry-level positions for a career in GIS. A digitizer job does not necessarily require experience. One’s work primarily involves digitization of scanned maps or aerials into a GIS-based data set.

- **GIS Technician Jobs — Cartographer and Photogrammetrist Jobs**: Technicians in this field include cartographers and photogrammetrists who collect, analyze, and interpret geographic information received from aerial photographs, geodetic surveys, and satellite data. They study and research maps and other spatial data in digital or graphic form for legal, social, educational, political, and design purposes.

- **GIS Analyst Jobs**: GIS analyst is a senior position that requires a minimum of two years of experience. This category can be broadly divided into the following:
  - GIS specialist jobs
  - GIS data specialist jobs
  - Engineering technician jobs
  - GIS mapping technician jobs
  - GIS mapping assistant jobs
  - GIS application specialist jobs

  To build a career as a GIS analyst, you should have strong overall knowledge of GIS. Most employers seek individuals with Macro, C, C++, and Visual Basic programming skills. Strong statistical analysis skills along with Oracle or related RDBMS skills are also preferred by most employers.

- **Manager and Coordinator Jobs**: Your career in GIS can lead you to a job as a manager or coordinator. You most likely will need five to six years of experience to obtain one of these positions. Project management and budgetary experience is generally required. A new position, GIO (geographic information officer), is also becoming popular. This position is a counterpart to the traditional CIO (computer information officer) position.

Conclusion
If you have decided to pursue a career in GIS or further your career, begin looking for a good GIS consulting firm. GIS consulting firms range from people working out of their houses to small firms and large corporations.

Some firms offer traditional GIS consulting services, while some offer outsourcing services. GIS consulting firms may also be software vendors that offer consulting services centered on their products.

When looking for an employer, it is important to find a GIS consulting firm that is professional, has a good track record, and has skilled and innovative staff.