Careers: Geographical Sciences

The University of Maryland Geographical Sciences major graduates have been successful in many different fields post-graduation. Using information from the University of Maryland graduation survey, we have compiled information about GEOG majors, such as where they work or go to graduate school post-graduation. Check out the topics below to learn more about planning for your career! #GeoTerps

Review additional resources at the University Career Center @ BSOS Your Career webpage.

Titles/Industries of Recent Alumni (Sample)

Explore career paths of GEOG majors with LinkedIn’s Alumni tool.
Note: Must have a LinkedIn account to access.

GIS

Job Titles:
Ecological Modeler
Freelancer
Geospatial Analyst
Geospatial Specialist
GIS Analyst
GIS Consultant
GIS Developer
GIS Specialist
GIS Technician
GIS Research Associate
Remote Sensing Technician
Remote Sensing Data Analyst
Surveying and Mapping Technician

Organizations:
AECOM
Anne Arundel County Department of Health
ASRC Federal
Deloitte
Esri
GIS and Geospatial Center at University of Maryland Libraries
Geospatial Consulting Group International
IIC Technologies, Inc
National Park Service
U.S. Census Bureau
U.S. Department of Agriculture
U.S. Environmental Protection Agency
U.S. Forest Service

Entry tips:
Important qualities/skills generally include: data analysis, organizational, and problem-solving skills.

GIS internships are available in a variety of fields, including both government and private sector.

For more information about careers in GIS, review these Vault articles:
- GIS Specialists
- Remote Sensing Technicians
- Surveying and Mapping Technicians

Geography and Cartography

Job Titles:
Cartographer
Geographer
Human Geographer
Mapping Specialist
Maritime Cartographer
Maritime Geographer
Nautical Cartographer
Surveying and Mapping Technician

Organizations:
Geomni
IIC Technologies
NAVSEA
NOAA
The Nature Conservancy
University of Maryland
U.S. Census Bureau
U.S. Forest Service
U.S. Geological Survey

Entry tips:
Important qualities/skills generally include: statistics, analysis, and interpretation skills.

Join professional associations such as the Association of American Geographers.

For detailed tips, visit Vault’s articles on Cartographers and Geographers.
**Data | Technology | Engineering**

**Job Titles:**
- Consultant
- Data Analyst
- Data Scientist
- IT Specialist
- IT Technician
- Network Engineer
- Research Assistant
- Software Engineer

**Organizations:**
- ActioNet
- AppGuard Inc.
- Booz Allen Hamilton
- Center for Global Development
- Esri
- Hughes Network Systems
- National Geospatial-Intelligence Agency
- Triumvirate Environmental
- USAID

**Entry tips:**
*Important qualities/skills generally include:* data analysis, statistics, and interpretation skills.

Many positions require statistical skills. Utilize [LinkedIn Learning](https://www.linkedin.com/learning) to learn programs such as R, SPSS, Stata, data visualization and more!

Learn more about [IT Career Paths](https://www.its.buffalo.edu/careers/index.html), including data visualization

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**Urban Planning**

**Job Titles:**
- Comprehensive Planner
- Environmental Planner
- GIS Planner
- Land Use Planner
- Regional Planner
- Trail Planner
- Transportation Planner
- Urban Planner Assistant

**Organizations:**
- AECOM
- Bureau of Transportation Statistics
- City of Rockville
- Fairfax County Government
- Maryland Department of Planning
- Maryland-National Capital Park and Planning Commission
- Rails-To-Trails Conservancy

**Entry tips:**
*Important qualities/skills generally include:* data analysis, statistics, and interpretation skills.

Local governments are a great place to find internships in planning.

Check out Vault’s overview of [Urban and Regional Planners](https://www.vault.com/)

*Some of these titles require an advanced degree.*

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**Explore career options: Resources**

Use the sample job titles listed in this document to start exploring career paths. The links below provide search boxes for you to locate more information on the titles as well as search for other options.

- [Occupational Outlook Handbook](https://www.bls.gov/opub/cqo/titles.htm), a career title dictionary
- [O*NET Online](https://www.onetonline.org/find/jobDetail.aspx), the nation’s primary source of occupational information
- [FOCUS2](https://www.focus2.com/), explore career paths using self-assessment questionnaires
- [Terrapins Connect](https://www.terrapinsconnect.com/), talk with professionals working in the field through UMD’s alumni network
- [Federal positions by major](https://www.usajobs.gov/), research career titles with the federal government related to your major

[Vault Guides](https://www.vault.com/) - browse 100’s of industry guides to gain tips from insiders *(see examples below)*.
Additional career fields to research and consider:

- Cultural Resources
- Cultural Geographer
- Emergency Management
- Cartography
- Geographic Information Systems
- Remote Sensing

Explore career options: gain experience

Not sure where to start in planning your post-graduation activities? Start by reviewing these general resources.

- Are you a Geographer?
- Career Planning, Wise Words from UMD GEOG Alumni
- Environmental Careers, provided by UMD Environmental Science and Policy Program
- Federal positions by major, mostly undergrad
- Preparing for a Geography Career, career tips from American of Association Geography

The links below will be a helpful start in locating internship openings.

- Research Opportunities, advice and links for undergraduate students
- BSOS Engagement Opportunities, offers links on internships, etc.
- National Consortium for the Study of Terrorism and Responses to Terrorism (START), Internships
- Geographical Sciences provides a list of Internships with Short Descriptions
- UMD Careers4Terps, a job and internship database for off-campus positions
- UMD National Scholarships Office, opportunities for undergraduate

The Department of Geographical Sciences offers internship, study abroad, and independent study related information on their website.

Did you know?

“Whether or not one has an internship impacts short-term and longer-term career success. Survey takers who completed at least one internship received a job offer more quickly and had a higher first position salary than those who did not.”

-NACE

Internships

Internships are a great way to try out an interest, regardless if they are directly related to your major. Employers tend to favor job seekers who have had an internship in the field they are hiring for.

Sample internship titles/sites

- Cartograph Roads Project Intern, Charles County Government
- Database Manager, NASA
- Geospatial Intelligence Intern, National Consortium for the Study of Terrorism and Responses to Terrorism
- GIS Intern, Maryland-National Capital Park and Planning Commission
- GIS Technician Intern, University of Maryland Facilities
- Intern, Humanitas Global
- Intern, Geospatial Data Center
- Project Management Intern, Clark Construction
- Senior Intern, Maryland State Geographical Information Committee
- Summer Intern-Environmental Education Intern, Howard County Nature Conservancy
Skills Developed

Skills lead to jobs. Which skills do you possess?
- Assess your skills, abilities, interests, and values and explore how they relate to career options.
- Complete this skills inventory to get started.

Geography majors have skills in...
- Reading and interpreting maps, charts, and photos
- Applying remote sensing techniques
- Representing facts graphically
- Designing and constructing charts, maps, and models
- Analyzing data
- Problem solving
- Evaluating impacts
- Simplification of information
- Using advanced mathematics, computer science, and statistics

Graduate School Programs

Start researching your career path of interest to identify the educational requirements. The list below offers a brief overview of some of the more popular graduate degree programs and institutions our GEOG undergraduates have attended.

Graduate programs listed by topic:
- Biogeochemistry, Ph.D. | Cornell University
- Business Administration, M.B.A. | University of Maryland
- Data Science, Graduate Certificate | Georgetown University
- Geography, M.A. | George Washington University
- Geography, Ph.D. | University of Maryland
- Geographical Information System, M.S. | University of Maryland
- Geospatial Information Sciences, M.P.S. | University of Maryland
- Human Paleobiology, M.S. | George Washington University
- Natural Resources, M.S. | Cornell University
- Nursing, M.S. | University of Maryland, Baltimore
- Public Policy, M.P.P. | University of Maryland
- Remote Sensing, Ph.D. | Brown University

Source: LinkedIn, UMD Geographical Sciences undergraduate alumni who pursued advanced degrees (sample)

Graduate School Resources

Researching programs:
Peterson’s Graduate School

Application tips:
- Questions to consider
- Application timeline: stay on track with your graduate school application
- Tips for the application
- Financing ideas for graduate school

Need help starting your career exploration or job search? Schedule a career consultation appointment with the University Career Center. Get started mapping your career action plan today!

www.careers.umd.edu | go.umd.edu/UCCBSOS | #GeoTerps