

What can I do with a major in GEOSCIENCES?

Ask the people who were once in your shoes.

We prepare students for a range of diverse careers.

This is what our graduates do . . .



Lauren: **BROADCAST METEOROLOGIST**

I analyze weather data and forecast atmospheric conditions to deliver accurate, timely weather information to the public across television, digital, and social media platforms. I also communicate complex weather events in a clear, engaging way, helping viewers understand potential impacts and stay safe during changing weather conditions.



Doug: **PROJECT GEOLOGIST**

I work as a Licensed Professional Geologist (P.G.) for an environmental consulting firm where I help clients understand and manage environmental conditions at commercial/industrial properties. Every week is different, ranging from overseeing field investigations and analyzing environmental data to managing projects and working with clients to solve complex problems.



Shane: **GEODETIC SURVEYOR**

A geodetic surveyor is not a standard land surveyor. Instead of marking property boundaries, I map the physics of the Earth (gravity, elevation, and precise coordinate reference systems) to ensure that military aircraft fly safely, missiles strike their targets accurately, and space operations function seamlessly.



Abbey: **EXPLORATION GEOLOGIST**

I integrate many types of data to evaluate regions in new basins that may be of interest for energy development. I use temperature and lithology logs, surface geology maps, and structure data in the public domain, along with geophysical data (such as gravity, seismic, and magnetotelluric) to build 3D geomodels to allow for deeper, more unconventional approaches of geothermal energy exploration and development.



Josh: **GEOCHEMISTRY LAB COORDINATOR**

I oversee the use, training, and maintenance of quadrupole ICP-MS, multicollector ICP-MS, and IR-MS instruments at a university. Instrumentation is used to measure trace element concentrations, radiogenic isotopes, light stable isotopes, and metal stable isotopes. My role also allows me to teach courses in Economic Geology and supervise student researchers.



Noah: **GIS & IT MANAGER**

I direct comprehensive geographic information systems across a several county region, overseeing projects involving grants, utility networks, and critical infrastructure. This role manages and assists with the maintenance of county parcel records and ensures the continuous accuracy of NG911 spatial databases to support regional emergency response and strategic planning.



Jacob: **GRADUATE STUDENT / RESEARCH ASSISTANT**

I study the distributions of two crayfish species, one invasive and one native, to inform conservation decision-making for state wildlife agencies in the western U.S. My position entails field sampling for crayfish and physical stream habitat, lab work developing an eDNA assay for my native species, collaborating with biologists from state agencies, and analyzing data to understand patterns in species distribution and habitat use.



Saegan: **ENVIRONMENTAL PROTECTION ENGINEER**

I work to identify and address sources of water pollution while protecting aquatic life, drinking water, recreation, and other beneficial uses. My work includes inspections, permitting, complaint investigations, enforcement, and technical assistance involving municipal, industrial, stormwater, wastewater, and mining operations. I also evaluate environmental conditions, review regulatory documents, and coordinate the resolution of compliance issues.



Eric: **PHOTOGRAMMETRIST**

I am responsible for producing planimetric and terrain data maps from aerial imagery and mobile-collected LiDAR for road-related projects. I also review mapped planimetric features and terrain data to ensure accuracy, assemble data composites and produce image mosaics for final product delivery to surveyors and engineers.



Michael: **COMMUNITY TREE STEWARD**

I support the development of a strong urban forestry program for a municipality in New England as both a custodian of saplings in our tree nursery and as a surveyor of street, forest, and park trees. I engage and communicate with residents and city staff to organize trainings, volunteer events, and educational programming for the long-term care and overall comprehension of the ecosystem services offered to us by our urban forest.



Amanda: **ENVIRONMENTAL GEOLOGIST**

I investigate environmental conditions below the ground, solve real-world challenges related to soil and groundwater contamination, and help guide projects from fieldwork through regulatory approval. It is a career that blends geology, environmental science, and hands-on problem-solving to make a meaningful impact on communities and the environment.

Abby: **STAFF SCIENTIST**

I work with a team of scientists and software developers to design and maintain the long-term digital archives of planetary geoscience data from past, present, and future NASA missions, such as the Mars Exploration Rovers, Mars 2020, and the Apollo and Artemis programs. I help ensure the usability and accessibility of geochemical and geophysical planetary mission data for current and future generations of the planetary science community.



Trisha: **SENIOR PRODUCT MANAGER**

I guide the development of software that helps agricultural businesses safely and efficiently manage the movement of fertilizer, grain, and other bulk materials. My background in geography and GIS, from developing LiDAR-based technology for autonomous farm equipment to advancing agricultural standards, helps me understand how metadata, location information, and digital boundaries integrate to connect technology with farming operations.



John: **UNIVERSITY HISTORY INSTRUCTOR**

I teach survey courses in U.S. and World History. My research interests center on 19th Century German immigration and the experiences of German-American soldiers in the Civil War. Although I am a historian, I continue to focus on geographic trends while teaching and especially in my research.



Neil: **ENVIRONMENTAL ASSESSMENTS RESEARCHER**

I investigate properties to identify and evaluate potential environmental and geological hazards. My work involves researching historical records, geological maps, regulatory files, and site-specific environmental information; conducting on-site field investigations and interviews with property owners, industry representatives and government agencies; and analyzing that information to determine potential risks.



Joe: **LAND SURVEYOR CREW CHIEF**

I conduct house-line surveys in the Chicago suburbs where I lay out new houses to be built using GPS to mark building corners and foundation lines, utility lines, and elevations across parcels of land. I also perform ALTA and topographic surveys to determine precise boundary lines on properties being considered for development into new subdivisions.



David: **WILDLAND FIREFIGHTER**

I patrol my duty location in the intermountain west looking for wildfires. When there are no fires, I lead crews in prescribed fire preparation and thinning. I also assist suppression efforts at larger fires across the country with hand crews, engines, or helicopters. I use maps to find best approaches to access fires and to ensure firefighter safety with escape route planning.



Harvey: **HIGH SCHOOL TEACHER**

I teach an Earth science course for high school freshmen focusing on topics such as chemical reactions, half-lives, speciation across regions, and fossil records to investigate aspects of geology, climatology, mineralogy, and astronomy. I also lead an elective environmental science course which is a student-driven research and discussion class about modern implications for our changing planet.



Phillip: **GIS SPECIALIST**

I oversee and perform field data collection using Trimble GPS units, while maintaining all geodatabases and maps for the Public Works Department. I also help with prescribed burns, asset management implementation, CAD-to-GIS migration, and collaborating with the City engineers and technicians.



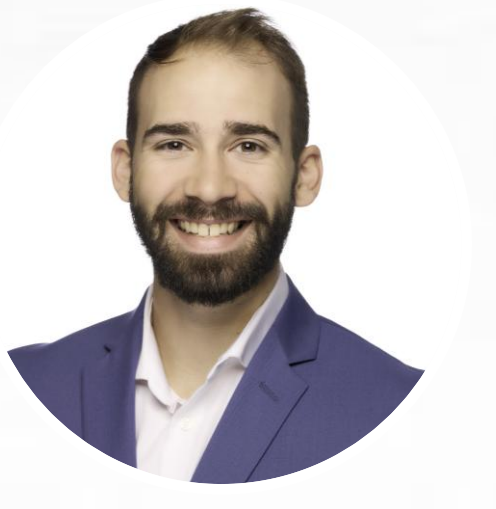
Shirley: **PHD STUDENT**

I am pursuing a PhD in Computational Geophysics where I combine my geology background with seismic interpretation, computational methods, and machine learning to better understand the subsurface for energy exploration and carbon storage. Using my work experience in industry, I now conduct geophysical research to help solve energy and subsurface challenges in the U.S. and globally.



Geno: **HYDROGEOLOGIST**

I lead the on-site execution of test plot programs by organizing field crews, coordinating with clients and contractors, and managing the installation of instrumented monitoring nests across tailings and waste rock facilities to evaluate long-term cover performance for mine closures. I also lead groundwater monitoring and sampling events at mine sites, handle field logistics and oversight, and help drive technical work that supports closure strategies.



Melissa: **METEOROLOGIST**

I collect weather, water, and climate data using radar, satellites, weather balloons, and the Automated Surface Observing System. I use this information, along with model data, to issue forecasts—including the 7-day, fire weather, aviation, and marine forecasts—and weather watches and warnings to provide decision support services to federal, state and local government agencies for the protection of life and property.



Looking for direction? **GEOSCIENCES** give you the opportunity to make a difference in the world.

