

# GIS Internship (Summer 2017)

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Engage in GIS work at the NEON Project headquarters in Boulder, CO following the guidance of their project mentor. The intern will primarily work to support spatial data management, site surveying and mapping projects, and refine technical skills by assisting with field and office GIS work. Tasks may include site surveying, differential-correction, integration of spatial datasets into an enterprise environment, performing quality assurance/quality control checks, preparing and publishing maps, and authoring metadata and other spatial documentation.

## Essential Duties:

- Assist with up to 3 field site surveys of aquatic instrumentation using a robotic total station and survey grade GPS.
- Post-process survey data to high degree of accuracy.
- Compile and convert geographic data from a variety of internal and external sources and integrate data into NEON GIS database.
- Generate maps for internal distribution.
- Prepare metadata, data processing summaries and other supporting documentation as appropriate.
- Position may include up to 30% travel.

## Reports and Presentations:

- Present project status to NEON mentor, departmental team and peers for feedback periodically throughout the summer.
- Prepare brief write-up describing NEON GIS operating procedures and illustrating the value of GIS at NEON.
- Present technical poster showcasing internship experience to NEON team and to peers at final Intern Poster Session at the end of the summer program.

## Seminars and Departmental Meetings

Participate in technical and career seminars and meetings with NEON science staff, NEON Internship program staff, and peers.

## Community and Professional Behavior

Interns are part of a diverse community of peers working and living together. Interns are expected to contribute positively to the community and to conduct themselves in a manner appropriate to a professional environment. Interns are also expected to fully participate during normal office hours and during NEON Internship functions.

## Decision making and problem solving

Interns will use basic problem solving skills in their work, will exercise judgment regarding when to ask for help, and will consult with their supervisor or mentor on larger job or community related issues.

## Education and Experience

### Required

Currently enrolled in a community college or undergraduate degree program in GIS, geography, computer science, environmental science or engineering. Must have had at least two semesters of GIS course work that includes exposure to basic GIS and cartographic principles, ArcGIS software, GPS and basic survey techniques (or equivalent experience). Must have a least one semester of college remaining after the summer program.

### Desired (but not required)

The ideal candidate will have experience working with databases (e.g., Access, RDBMS), ArcServer and published web services, field survey equipment, GPS and post-processing software, and data integration. Experience working with a total station is a plus.

### Knowledge/Skills/Abilities

- Basic knowledge, through coursework, of GIS and cartographic principles.
- Basic knowledge of ArcGIS software.
- Basic knowledge of GPS and surveying principles.
- Ability and willingness to learn and use GIS tools.
- Ability to work independently, and with a diverse group of individuals.
- Skill in the use of software for communication purposes (e.g., Word, PowerPoint, Excel).
- Basic problem solving and critical thinking skills.
- Good oral and written communication skills.
- Potential to excel in GIS career.
- Ability to work full-time in Boulder, CO during the summer program.
- Ability to interact with mentors and peers in a manner that supports collaboration and inquiry.
- Ability and willingness to work within guidelines and policies of the organization and assigned work groups.

### Physical Demands

Field work is physical and may involve walking, hiking, prolonged standing, and bending. Heavy items (e.g. equipment and packs up to 40 pounds) may be lifted and carried on a routine basis.

### Work Environment

At least 70% of this internship will involve work in an office at a desk. Field work may include exposure to extreme weather conditions and terrain, poisonous plants, biting insects, and wild animals.

### Other Requirements

You must have permanent authorization for US employment. Battelle Ecology, Inc. will not provide any kind of visa sponsorship.

**Application Information:** [www.neonscience.org/research-internships](http://www.neonscience.org/research-internships)