



## Summer Internship 2014 - Boulder, Colorado

February 21, 2014

---

### About UNAVCO

UNAVCO, Inc. a non-profit university-governed consortium facilitates geoscience research and education using geodesy. We challenge ourselves to transform human understanding of the changing Earth by enabling the integration of innovative technologies, open geodetic observations, and research, from pole to pole.

### UNAVCO Internship Program

This summer UNAVCO is offering unique internship opportunities for undergraduate and graduate students. Our internships are real-world work experiences related to the students' major or career goal. As an intern you will be an integral member of the UNAVCO team and play an important role by contributing your knowledge, skills, and abilities to specific projects. Our managers teach interns what it is like to work in a non-profit organization that facilitates research and education. In turn, we anticipate that you will play an important role in achieving project goals and that throughout the internship we are able to share expertise, leverage best practices and forge lasting relationships.

### Available Intern Opportunities

- UNAVCO Data Technician (1 position)
- UNAVCO Education and Community Engagement Specialist (3 positions)
  - Geodesy Education Curriculum for K-12 (ECE-K-12)
  - Education and Outreach for Plate Boundary Observatory (ECE-PBO)
  - Geodetic Data for Undergraduate Education (ECE-Undergraduate)

### Timing

The internship will begin on June 9, 2014 and end on August 1, 2014 and requires a full-time, Monday through Friday, 8:00 a.m. to 5:00 p.m. commitment for the 8-week program.

### Pay

Interns are paid an hourly rate of \$11.00 to \$17.00/hour. All interns are provided a bus pass for local transportation, if necessary. Interns who live outside the Boulder, Colorado area will be expected to pay for their transportation costs to and from Denver/Boulder as well as for their housing costs.

### What to Expect

Internship assignments vary each year based on business needs. Managers identify a specific business need, designate a role and create a statement of work for the intern. The intern will be assigned real-world work, with real impact to UNAVCO and the community we serve. The manager will be the intern's supervisor and mentor.



## Summer Internship 2014 - Boulder, Colorado

February 21, 2014

---

The intern will receive a company orientation and then collaborate with their manager to develop a work and learning plan that aligns with the statement of work. Before beginning work, interns will receive appropriate training, including compliance and safety training. Interns will meet with their managers weekly at the beginning of their assignment and have informal performance feedback throughout their assignment.

UNAVCO provides many formal and informal learning opportunities; these include team meetings and various company meetings. Interns will be invited to participate in these events as well as other UNAVCO business and social events.

### Requirements

- Must be eligible to work in the United States.
- Must be available to participate fully in the program, including ability to arrange transportation and housing for the duration of the assignment.
- Must currently be enrolled as a college junior, senior, or graduate student
- Must complete the online application process by 5:00 p.m. (MDT) on Friday, March 21, 2014.
  - Online application including attaching a pdf copy of your Statement of Interest that clearly articulates your professional or academic goals
  - Unofficial Transcript
  - Two (2) Letters of Recommendation, submitted directly to [internship-recommendation@unavco.org](mailto:internship-recommendation@unavco.org)
- You may apply for more than one position.

### Interested in the UNAVCO Internship Program?

Visit our website at [www.unavco.org](http://www.unavco.org) for more information about our work. If you are interested in an internship, apply online at [www.unavco.org/careers](http://www.unavco.org/careers). See "Requirements" above. Please no calls from agencies or recruiters.

### Data Technician

#### Purpose

The Data Technician Intern will work with the Data Center Manager to move forward UNAVCO's data set publication via the Digital Object Identifier (DOI). UNAVCO is creating DOIs for data sets in accordance with the recommendation from the National Science Foundation (NSF). For data, the DOI is a globally unique, web compatible "address" that allows access to data set metadata and the data. The Data Technician Intern will also provide other archiving related support.

- Prepare summaries of data sets that are complete and ready for data set publication via the DOI mechanism.

- Communicate with Principal Investigators (Research Scientists) on any issues or questions about data set creators, publications, or release notes
- Complete the DOI publications for actionable data sets.

### **What You Will Learn**

You will understand the function of data set DOI's for science data and some aspects of working with a database and database applications. You will work in an interdisciplinary environment and have the opportunity to further develop your communication and time management skills.

### **Requirements**

- Junior or senior level undergraduate student or graduate student, majoring in Earth science or other science discipline.
- Experience working with MS Office applications, specifically intermediate level Excel, Word skills.
- Knowledge of and experience working with databases and the ability to learn UNAVCO-developed database tools.
- Excellent communications skills.

### **Desired Skills and/or Experience**

- Experience working with Unix operating system.

### **Working Conditions**

- Most work will be performed in a professional casual office environment.

### **Geodesy Education Curriculum for K-12 (ECE-K-12)**

#### **Purpose**

The Education and Community Engagement Specialist- Geodesy Education Curriculum for K-12 (ECE-K-12) intern will assist with reviewing and updating a subset of UNAVCO developed classroom learning materials and activities for grades 6-12 and undergraduates. The focus of the process will be to update science content and align these classroom learning materials and activities with Next Generation Science Standards (NGSS) where appropriate.

- Review science-learning activities for scientific accuracy and best pedagogical practices.
- Update learning activities, when appropriate aligning to NGSS.

### **What You Will Learn**

You will strengthen your ability to create science classroom learning activities. You will also learn what it is like to work in an interdisciplinary environment across multiple programs as you sharpen your communication and teamwork capabilities.

### **Requirements**

- Senior-level undergraduate student or graduate student in Geology, or related area of study or in-service teacher.
- Satisfactory completion of coursework in college algebra and geology.
- Proficient in MS Office products.
- Excellent writing skills.
- Exceptional attention to detail.
- Ability to work independently.

### **Desired Skills and/or Experience**

- Classroom teaching experience.
- Experience developing curriculum materials.
- Knowledge of geodesy.
- Experience working with science data.
- Familiarity with NGSS.

### **Working Conditions**

- Most work will be performed in a professional casual office environment.

### **Education and Outreach for Plate Boundary Observatory (ECE-PBO)**

#### **Purpose**

The Education and Outreach for Plate Boundary Observatory (ECE-PBO) intern will assist with the creation of educational and outreach materials using data from the Plate Boundary Observatory (PBO) with a focus on Alaska and the western United States. The Plate Boundary Observatory is a network of more than 1,000 geophysical instruments installed throughout the western U.S. to measure deformation resulting from tectonic motion, used to better understand plate boundary dynamics and natural hazards.

- Develop content describing PBO to a non-scientific audience including landowners, formal and informal educators, and park interpreters. Content will include a general overview of PBO focused on science and hazards applications and materials specific to

key stations, with the goal of making site data understandable and meaningful to the public.

- Disseminate content through the UNAVCO website and UNAVCO social media with a focus on Facebook.

### **What You Will Learn**

You will learn to incorporate science data into outreach materials, develop scientific storytelling skills. You will learn to navigate the interface between science and education. You will strengthen your research and communication and teamwork skills as you work as part of a geographically distributed team.

### **Requirements**

- Senior-level undergraduate student or graduate student in geoscience, or journalism/communications student with an interest in Earth science and data.
- Ability to understand and work with data sets and graphs.
- Excellent written, oral and interpersonal skills.
- Ability to work collaboratively and independently with manager and geographically a dispersed interdisciplinary team to gather information, solicit and process feedback effectively.
- Proficient in MS Office products.
- Exceptional attention to detail.

### **Desired Skills and/or Experience**

- Experience with graphic design and the Adobe Creative Suite.
- Experience working with social media especially Facebook.
- Experience writing and editing web content.
- Experience communicating science to the public.
- Experience with data visualization design and tools.

### **Working Conditions**

- Most work will be performed in a professional casual office environment.

### **Geodetic Data for Undergraduate Education (ECE-Undergraduate)**

#### **Purpose**

The Geodetic Data for Undergraduate Education (ECE-Undergraduate) intern will assist with the development of geodesy-focused classroom activities that utilize geodetic data by helping with the data preparation and presentation using different techniques such as GPS, InSAR, LiDAR, gravity, and sea-level altimetry.

- Download and format geodesy data for incorporation into classroom learning activities, data may include GPS, InSAR, LiDAR, and possibly other data types in raster, spreadsheet, or ArcGIS format.
- Assist with integrating data into learning activities for undergraduate geoscience students (geology majors and/or introductory students).

### **What You Will Learn**

You will develop in-depth knowledge of airborne and terrestrial light detecting and ranging (LiDAR) and InSAR data.

### **Requirements**

- Graduate student in geosciences or physical geography.
- Experience with GIS software (e.g., ArcGIS), MATLAB, ROI\_PAC, or other geospatial processing and analysis software, or computer programming.
- Experience working with science data.
- Interest in working with science data for educational purposes.
- Strong oral and written communication skills.
- Attention to detail.
- Ability to work independently.

### **Desired Skills and/or Experience**

- Knowledge of geodesy.
- Experience working with InSAR, GPS, and/or LiDAR data processing.
- Experience developing curriculum materials.
- Experience developing education, outreach, or community engagement materials.

### **Working Conditions**

- Most work will be performed in a professional casual office.