

## **Overview**

The National Ecological Observatory Network (NEON) is a \$430 million dollar observatory project dedicated to understanding how changes in climate, land use and invasive species impact ecology. For the next three decades NEON will collect a comprehensive range of ecological data on a continental scale across 20 eco-climatic domains representing US ecosystems. NEON will use cutting edge technology including an airborne observation platform that will capture images of regional landscapes and vegetation; mobile, relocatable, and fixed data collection sites with automated ground sensors to monitor soil and atmosphere; and trained field crews who will observe and sample populations of diverse organisms and collect soil and water data. A leading edge cyberinfrastructure will calibrate, store and publish this information. The Observatory will grow to 300+ personnel and will be the first of its kind designed to detect and enable forecasting of ecological change at continental scales.

## **Term:**

One year from start date

## **Location:**

Boulder, Colorado

## **Summary:**

The Fundamental Instrument Unit (FIU) consists of an automated suite of meteorological, atmospheric, soil and ecophysiological measurements. The position will support Science project development and management activities. The FIU is responsible for developing innovative data products and QA/QC algorithms, sensor deployment in the field, a mobile sensor platform, field procedures, training materials for field staff, and performing (new) site designs and ongoing technology assessments. This position will contribute towards for all these activities; key responsibilities will be contingent on the skills and experience of the candidate.

## **Essential Duties and Responsibilities**

- Coordinate, execute and document the innovative procedures
- Involve in FIU data quality assurance, quality control procedures, and uncertainty analyses, Coordinate FIU dataflows with other related NEON groups
- Develop and document FIU instrument standard operation procedures, command and control, algorithms
- Develop plans for evaluating and transferring research - grade programming into an operational and production framework

## **Required Experience:**

- Experience in one or more of the following: Ecology, Ecophysiology, Biometeorology, Atmospheric Chemistry, Soil Ecology, Technical/Scientific writing, Environmental Engineering and/or related work,
- Experience in working with field and/or experimental data and synthesized findings
- Experience in delivering a final product from concept through testing to completion
- Experience in working in a collaborative scientific or engineering enterprise

### **Education:**

- Bachelor's degree (BS or BA) with experience in an environmental science field (*e.g.*, Ecology, Ecophysiology, Biometeorology, Atmospheric Chemistry, Soil ecology, Technical/Scientific writing, Environmental Engineering, Soil sciences) or a related field is required
- PostBac with greater than 2 years experience or Master's degree (MA or MS) is desired

### **Preferred Experience:**

- Experience in large data set process and data QA/QC
- Knowledge of a wide range of meteorological related sensors, and measurement techniques and their associated data acquisition and analysis procedures
- Design of metadata, and data handling tools
- Ability to develop the dataflow designs for different and contrasting data types
- Experience in technical document writing – science field required.

### **Skills and Abilities:**

- Critical thinking, scientific/technical writing and review
- Demonstrated problem-solving and communication skills, and who can successfully apply experience, judgment, and creativity to challenges
- One who can create new opportunities within this field and use novel methods, analyses and approaches to tackle continental-scale research
- Desired community knowledge base of both instrument hardware and software development or operation

- Synthesizing findings and writing technical reports
- Ability to bring their specific area of expertise into a challenging Observatory - based design
- Ability to communicate and interpret key science issues and technical transfer to non - experts in both written and oral forms
- Demonstrated ability to communicate effectively in written forms and technical writing

To Apply: go to [www.neoninc.org](http://www.neoninc.org)

NEON Inc. is an Equal Opportunity Employer. Women, Minorities, Veterans and Disabled Persons are encouraged to apply.

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