



Paid Internship position with National Park Service Coastal Vulnerability Assessment Database and Web Application

The expected impacts of climate change can vary wildly in nature and extent across species, ecosystems, cultural sites, historic buildings, and park facilities. Understanding the relative degree to which park resources are susceptible to—or unable to cope with—effects from climate change is important for responsibly managing parks in a warming world. [Vulnerability assessments](#) help identify why, where, when, and which resources may be most at risk. NPS will be looking to hire a student intern for late summer/fall 2021 for at least one-year with a possibility of extension to assist with a coastal vulnerability assessment project. This internship will provide opportunities to work with GIS and other NPS staff, understand timely geospatial models to assess vulnerability, and evaluate operational resilience and risk assessment geospatial data.

NPS staff have built a web mapping application that exposes data for 40 parks to assist with management decisions on NPS land based upon soil characteristics, erosion potential, sea level rise, and storm surge projections. The student selected for this internship will perform data management work to integrate vulnerability data on 15 new parks into the viewer, develop and update formal documentation, and develop and host training webinars for staff to use the tool and underlying data. Work will be conducted in conjunction with experts at Western Carolina University, the National Renewable Energy Laboratory, and the NPS Resource Information Services Division. Primarily remote work will be conducted Monday-Friday any time between 7 a.m. MT and 6 p.m. MT. Some office visits to 12795 West Alameda Parkway Lakewood, CO 80228 may be required. Pending NPS policies regarding office reopening, transitioning to the Alameda Parkway location may be an option if the selected candidate is interested in working from an office location.

Pay rate: \$18/hr. Expected duration of position 12 month approximately.

Main Tasks:

- Coastal vulnerability assessment data migration, quality control, verification, and validation (15 parks). This task may require scripting with Structured Query Language (SQL) and/or Python and ArcPy.
- Performing updates to the Coastal Vulnerability Data Viewer (CVDV), a web mapping application built in ArcGIS Web AppBuilder.
- Perform documentation updates for the CVDV user manual, data dictionary, data standard, and web services.
- Development and presentation of recorded training webinars on the use of the CVDV.
- Collaborate with technical experts and scientists from NPS and the National Renewable Energy Laboratory (NREL) to document, consolidate, integrate, and publish climate operational resilience and risk assessment geospatial data into the CVDV.

Desired Skills:

- Experience using ArcGIS Pro, ArcGIS Online, and ArcGIS Web AppBuilder. Database skills for geospatial data, which includes experience with Relational Database Management Systems (RDBMS) is a plus.
- Experience writing scripts in Python and/or SQL for data manipulation, wrangling, and batch data loading.
- Ability to critically assess data quality and accuracy in data integration, reconciliation, and analysis activities and processes.
- Ability to develop professional training webinars on GIS web applications and to provide customer support and training as needed.
- Effective writing skills to support development of and updates to a web application user manual, data dictionary, and data standard documentation.
- Highly detail oriented with strong organizational skills.
- Strong problem-solving and analytical skills. Experience working with natural resource hazard or related datasets is a plus.

HOW TO APPLY:

Send the following documents in PDF format to **Dr. Rafael Moreno** Rafael.Moreno@ucdenver.edu: 1) Cover letter (**make note of expected graduation date**); 2) Resume (include 2 GIS relevant references; link to professional portfolio online with samples of your GIS, programming, and/or database work highly desirable).

DEADLINE: Until position is filled