

# **CIRES/NCEI Digital Elevation Model Developer/GIS Technician**

Department: Cooperative Institute for Research in Environmental Sciences (CIRES)

Requisition Number: 18921

Location: Boulder, Colorado

Employment Type: Research Faculty

Schedule: Full-Time

## **Job Summary**

The Cooperative Institute for Research in Environmental Sciences (CIRES) at the University of Colorado at Boulder conducts collaborative research with NOAA's National Centers for Environmental Information (NCEI) on the archive, analysis, processing, and dissemination of data and integrated models describing Earth's geophysical environment. This collaboration includes geospatial technology for global integrated observing and data management systems, improved integration and modeling of geophysical data, enhanced web discovery and delivery of data and integrated models, and long-term data stewardship. This CIRES position is co-located with NOAA NCEI staff at the David Skaggs Research Center, 325 Broadway, Boulder, Colorado.

NCEI develops integrated bathymetric–topographic digital elevation models (DEMs) in support of NOAA's coastal inundation modeling efforts and according to specific funding agency requirements. The successful candidate will be instructed on DEM development including processing elevation data, evaluating the DEM products, and writing technical documentation for the products. It is expected that the successful candidate will take on more duties with experience and develop the skill set to work independently.

## **Who We Are**

At CIRES, the Cooperative Institute for Research in Environmental Sciences, more than 800 environmental scientists work to understand the dynamic Earth system, including people's relationship with the planet. CIRES is a partnership of NOAA and the University of Colorado Boulder, and our areas of expertise include weather and climate, changes at the Earth's poles, air quality and atmospheric chemistry, water resources, and solid Earth sciences. Our vision is to be instrumental in ensuring a sustainable future environment by advancing scientific and societal understanding of the Earth system.

<https://cires.colorado.edu/>

National Centers for Environmental Information website:

<https://www.ngdc.noaa.gov/>

## **What Your Key Responsibilities Will Be**

- Locate and obtain elevation data available on the Internet, and research data not publicly available.
- Evaluate bathymetric and topographic elevation data in a GIS environment.
- Transform elevation data to common horizontal and vertical datums, and common file formats.
- Utilize numerous software applications to develop high-resolution, integrated bathymetric-topographic DEMs.
- Write detailed technical reports and standards-compliant metadata on DEM development.
- Monitor and assist in maintaining online DEM distribution and archive systems.
- Develop project related outreach materials and materials supporting NCEI activities as needed by senior staff.
- Respond to technical customer/data user questions via email.

## **What You Should Know**

CIRES commits to inclusive excellence by advancing equity and diversity in all that we do. We are an Affirmative Action/Equal Opportunity employer, and particularly encourage applications from members of historically underrepresented racial/ethnic groups, women, individuals with disabilities, veterans, LGBTQ community members, and others who demonstrate the ability to help us achieve our vision of a diverse and inclusive community.

This position will be rostered in CIRES at the University of Colorado Boulder, but will be physically situated in the David Skaggs Research Center, 325 Broadway, Boulder, CO 80305. If you are the selected finalist you will be required to pass a federal laboratory background clearance for site access.

## **What We Can Offer**

We can offer a competitive salary, commensurate with experience, along with a generous benefits package.

The position will be filled as a CIRES Associate Scientist I through the University of Colorado at Boulder. Salary range is 45K to 60K depending on applicant qualifications.

## **Be Statements**

Be Innovative. Be Visionary. Be Boulder.

## **What We Require**

- Bachelor's degree in Geology, Geography or related Earth Science.
- Excellent problem-solving skills.
- Experience with GIS software, including but not limited to ESRI ArcGIS.

- Experience working in a Linux environment.
- Experience in data management and file organization structures.
- Ability to quickly learn new software applications.
- Clear oral and written communication skills.

## **What We Would Like You To Have**

- Experience with DEMs and techniques in DEM development and assessment.
- Understanding of common horizontal and vertical datums.
- Understanding of and familiarity with ISO standards-compliant metadata.
- Experience with GIS tools for data manipulation, visualization and evaluation, and data processing techniques.
- Experience with Python scripting.
- Familiarity with bathymetric and topographic elevation data including lidar.
- Ability to pose and address research questions relevant to DEM development and use.

## **Special Instructions**

To apply, please submit the following materials:

1. Resume or CV.
2. Cover letter addressed to the Search Committee briefly describing your qualifications, professional goals, and specific interest in this position. Please also describe how your technical skills meet the job requirements.
3. List of 3 references: the names, professional titles, and contact information of those who are familiar with your qualifications and work history.
  - If you are selected as the finalist, we will contact you through email and request that you submit 1 name and email of a reference who will be asked to submit a letter of recommendation. This information will be kept confidential and viewable only by the search committee.

This position will remain open until filled.

Note: Application materials will not be accepted via email. For consideration, applications must be submitted through [CU Boulder Jobs](#).

**Posting Contact Name:** Kelly Carignan

**Posting Contact Email:** [kelly.carignan@noaa.gov](mailto:kelly.carignan@noaa.gov)

The University of Colorado Boulder is committed to building a culturally diverse community of faculty, staff, and students dedicated to contributing to an inclusive campus environment. We are an Equal Opportunity employer, including veterans and individuals with disabilities.