The Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University (CSU) seeks to fill a professional scientific position designed to perform full-time collaborative research and development with the National Oceanic and Atmospheric Administration (NOAA) located at the Earth System Research Lab (ESRL), Global Systems Division (GSD) in Boulder, CO. This position is located in a federal facility and requires the ability to pass a National Agency Check with Inquiries (NACI, federal background check) for building access.

Background

The Cooperative Institute for Research in the Atmosphere (CIRA) is a multi-million dollar research organization located on CSU's Foothills Campus in Fort Collins, Colorado. It is a cooperative institute that is also a research department within CSU's College of Engineering, in partnership with the Department of Atmospheric Science. Its vision is to conduct interdisciplinary research in the atmospheric sciences by entraining skills beyond the meteorological disciplines, exploiting advances in engineering and computer science, facilitating transitional activity between pure and applied research. CIRA leverages both national and international resources and partnerships, and assists NOAA, Colorado State University, the State of Colorado, and the Nation through the application of our research to areas of societal benefit.

The Global Systems Division (GSD) of ESRL is a federal science and research organization under NOAA’s Office of Oceanic and Atmospheric Research (OAR). GSD is a leader in the applied research, directed development, and technology transfer of environmental data, models, products, and services that enhance environmental understanding with the outcome of supporting commerce, protecting life and property, and promoting a scientifically literate public.

This position is situated within the Applied Technology and Outreach (ATO) Branch of GSD. ATO identifies, investigates, and develops high-performance computing methods, products, systems, and tools to support the NOAA Mission and NOAA research and operations. ATO transforms these new technologies and capabilities into innovative and valuable forecast and analysis systems that ingest, manage, analyze, and display environmental data in ways that help the NOAA National Weather Service, other professional users, educators, and the public understand our complex Earth.

The person in this position will provide a broad range of research, development, and program support for the Science On a Sphere® (SOS) website (sos.noaa.gov), dataset catalog, and internal content management system (CMS), as well as researching, developing, enhancing, and
maintaining web services, applications, and graphical displays for SOS and other web development projects in ATO. This position reports to the SOS Technical Project Lead.

**Responsibilities**

**Software Development - 45%**
- Generate and enhance innovative content on the SOS website, including formatting datasets in the SOS data catalog
- Provide timely fixes to technical and security problems arising on the SOS website
- Research and enhance internal content management and dataset creation workflow processes and tools, including support for real-time datasets
- Support network, system, and software infrastructure of web components
- Thoroughly test web software prior to deployment, with particular attention to detail
- Keep documentation of systems, tools, and processes accurate and up-to-date
- Generate web tracking and usage reports, as well as implementing website changes based on observed user activity
- Develop and enhance SOS online tools, including original dataset movies and interactive, cutting edge 3D displays
- Play a critical role in the research and development of a web-based version of [SOS Explorer](#)

**Collaborative Development - 45%**
- Maintain, update, enhance, or replace other existing web-based tools in ATO
- Lead and participate in research and development on innovative web-based tools in ATO
- Maintain proficiency with the latest web technologies and standards, as well as attaining proficiency in cutting-edge technological areas

**Documentation and Reporting 10%**
- Prepare software documentation in collaboration with team members.
- Prepare status reports as required by the project sponsor and CIRA.
- Prepare and deliver technical talks and presentations as requested.

**Required Qualifications**
- This position is located in a federal facility and requires the ability to pass a National Agency Check with Inquiries (NACI, federal background check) for building access.
- Bachelor’s Degree in Computer Science, Engineering, Physical Sciences, or a related scientific field, plus 3 years of related experience
- Experience with relational databases, including schemas, complex SQL queries, and administration
- Strong knowledge of HTML, CSS, and Javascript
- Expertise using XML and JSON file formats
- Experience working in a Linux environment
- Programming ability in Python
- Knowledge of code management software, such as GIT or Subversion (SVN)
- Experience with issue trackers, such as Redmine

**Desired Qualifications**
- Proficiency with MySQL databases
- Experience with the Django web framework
- Knowledge of continuous integration software, such as Jenkins
- Knowledge of Content Management Systems (CMS) concepts and software
- Experience with 2D/3D visualization libraries, toolkits, and environments used for displaying scientific data on web browsers
- Experience with configuring and administering web servers, such as Apache or NGINX
- Experience implementing faceted search capabilities on websites
- Knowledge of adaptive design principles for websites
- Proficiency in applying web security standards
- Experience using basic shell programming such as csh or bash
- Knowledge of Google Analytics and reporting collected usage metrics
- Experience writing research and development funding proposals
- Exposure to Agile development practices
- Excellent problem-solving skills and logical thinking ability
- Strong interpersonal, oral, and written communication skills
- Demonstrated ability to work independently as well as within a team-based environment, handle multiple tasks, and ensure projects meet deadlines

**Salary:** Commensurate with qualifications and experience.

**Background Check**
Colorado State University is committed to providing a safe and productive learning and living community. To achieve that goal, we conduct background investigations for all final candidates being considered for employment. Background checks may include, but are not limited to, criminal history, national sex offender search, and motor vehicle history. **This position is located in a federal facility and requires the ability to pass a National Agency Check with Inquiries (NACI, federal background check) for building access.**

**Commitment to Diversity and Inclusion**
Reflecting departmental and institutional values, candidates are expected to have the ability to advance the Department's commitment to diversity and inclusion.
Application Deadline  Applications will be accepted until the position is filled; however, to ensure full consideration, applications should be submitted by 11:59 PM MDT on TBD, 2018. Apply electronically by clicking “Apply to this Job” at the following website: http://jobs.colostate.edu/postings/56812. References will not be contacted without prior notification of candidates.

Decision Making
Decision making depends on the analysis of the user requirements, software architecture constraints, or technical issues involved with each software build and update. The chosen implementation approach may need to be selected from many alternatives. This position normally receives little instruction on day-to-day work and receives general guidance on the overall web development work conducted to align with product releases. The individual will set priorities which accurately reflect the relative importance of particular upgrades and other work activities as well as established software release deadlines.

Short Posting
The Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University (CSU) seeks to fill a professional scientific position designed to perform full-time collaborative research and development with the National Oceanic and Atmospheric Administration (NOAA) located at the Earth System Research Lab (ESRL), Global Systems Division (GSD) in Boulder, CO. This position is located in a federal facility and requires the ability to pass a National Agency Check with Inquiries (NACI, federal background check) for building access. The person in this position will provide a broad range of research, development, and program support for the Science On a Sphere® (SOS) website (sos.noaa.gov), dataset catalog, and internal content management system (CMS), as well as researching, developing, enhancing, and maintaining web services, applications, and graphical displays for SOS and other web development projects the branch. For complete position announcement and qualification requirements, visit: http://jobs.colostate.edu/postings/56812. Full consideration date is Sunday, June 24, 2018 at 11:59 PM MST. Please address “Required and Preferred” qualifications as relate to your professional experience in the cover letter. References will not be contacted without prior notification of candidates.