Position Summary:
The Cooperative Institute for Research in the Atmosphere (CIRA) at Colorado State University (CSU) seeks to hire a Research Associate I or II to work on the CSU Foothills Campus, located 5 miles Northwest of the CSU main campus to support software and programming of the Joint Polar Satellite System (JPSS) mission. The individual in this position will report to the JPSS Lead Algorithm Developer and support the reverse-engineering/development of an existing NOAA polar-orbiter satellite algorithm development library (ADL) tool that is primarily written in C++ and used to generate real-time level 1 and level 2 imagery and geolocation products. CIRA leads the VIIRS level 2 imagery evaluation team for the JPSS project. Position title of Research Associate I will apply to the finalist with a Bachelor’s Degree and 1-2 years of experience working in software engineering, and position title of Research Associate II will apply to the finalist with a Bachelor’s Degree and 3 or more years of experience working in software engineering, or a Master’s degree and at least 1 year of experience working in software engineering. This position has potential for flexible work arrangements including hybrid office/remote work.

Decision Making:
The individual in this position will make decisions based upon knowledge of software engineering techniques and capabilities based on previous programming experience and through interactions with the existing software. They will work both independently and collaboratively with the JPSS Algorithm Team and CIRA Software Engineers along with other IT personnel and CIRA Principal Investigators. Specific decision-making activities will be as follows:

- develop, optimize and design JPSS ADL tools in a team environment and in close coordination with subject matter experts and research staff;
- set meetings with supervisor and above-mentioned colleagues to evaluate new and existing software ideas and workflows and decide which feedback to implement, iterate and optimize based on feedback;
- prioritize and outline tasks in a systematic way, and determine specific guidelines and protocols to meet goals and deliverables in a timely manner.

Essential Job Duties:
JPSS Software Developer (75%)

- become fully acquainted with the architecture and inner-workings of the JPSS ADL library and tools;
- develop enhancements to existing code, providing suggestions for new ways to redesign and improve software;
- learn and apply new technology related to software engineering and programming, implement best practices.

Systems Design Engineer (25%)

- automate, manage and ingest large meteorological data sets to support analysis and processing of experimental products, algorithms, techniques, and decision support tools;
- evaluate code performance and scalability on CPUs and/or GPUs.

Required Qualifications:

Note: Please detail each of these items in your cover letter and resume.

- for Research Associate I: Bachelor’s Degree in Computer Information Systems, Computer Science, Engineering or related science field plus 1-2 years of experience working in software engineering.
for Research Associate II: Bachelor’s Degree in Computer Information Systems, Computer Science, Engineering or related field plus 3 or more years of experience working in software engineering –OR- Master’s Degree in Computer Information Systems, Computer Science, Engineering or science related field plus at least 1 year of experience working in software engineering;

demonstrated knowledge of C++, with the ability to understand existing scientific code;

experience with geographic projections (mercator, geostationary);

experience with existing perl, xml, and/or bash scripts;

UNIX/Linux skills, experience using terminal and command line utilities;

ever communications skills, experience working independently, multitasking, presenting to a group of people, and meeting specific goals and deadlines.

Preferred Qualifications

Note: Please highlight any applicable items in your cover letter and resume.

- experience with satellite imagery datasets or satellite remote sensing;
- degree in Meteorology, Atmospheric Science or related scientific field;
- experience with satellite imagery processing;
- experience working with containerizing applications (Docker, Podman);
- experience working with distributed source control such as git or svn;
- experience with management of computer, network and/or storage resources;
- experience working in high performance computing (HPC) environment;
- experience with AWIPS and/or McIdas.

Annual Salary Range: $60,000 - $72,000 commensurate with experience and qualifications

Background Check:

Colorado State University (CSU) strives to provide a safe study, work, and living environment for its faculty, staff, volunteers and students. To support this environment and comply with applicable laws and regulations, CSU conducts background checks. The type of background check conducted varies by position and can include, but is not limited to, criminal (felony and misdemeanor) history, sex offender registry, motor vehicle history, financial history, and/or education verification. Background checks will be conducted when required by law or contract and when, in the discretion of the university, it is reasonable and prudent to do so.

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 and How to Apply:

Applications will be accepted until the fellowship is filled; however, to ensure full consideration applications should be submitted by 11:59 PM MT on August 14, 2022. References will not be contacted without prior notification of candidates. Apply electronically by clicking “Apply to this Job” at the following website: https://jobs.colostate.edu/postings/109134. NOTE: In your cover letter, please specifically address the required and preferred qualifications of this position. A cover letter that fails to address the required and preferred qualifications of this position may not be further considered after review by the search committee.