

Junior/mid-level C++ Programmer

Employer: U.S. Geological Survey Astrogeology Science Center

Location: Flagstaff, AZ

Date Posted: March 2, 2015

Deadline: March 20, 2015

See more details and apply at: <http://1.usa.gov/1GkXECB>



Top left: Apollo 15 Metric Camera Image of Tsiolkovsky Crater on the Moon (NASA/JSC/ASU). Top right: HiRISE image at 0.5 cm/pixel showing whirlwind trails on Martian sand dunes. Bottom: View of the San Francisco Peaks as seen from the Astrogeology Science Center.

Job Description

The U.S. Geological Survey's Astrogeology Science Center in Flagstaff, AZ, a leader in extraterrestrial mapping, is seeking junior level programmers to join our growing scientific software development team. In this team, you will be working on our flagship digital cartographic software system, the Integrated Software for Imagers and Spectrometers. This software is used by most US and many international planetary space missions to produce precision cartographic products. As part of our software development team you will help Astrogeology complete its vision "to enable the successful investigation of the Solar System for humankind." Our team consists of programmers, cartographers, and research scientists working side-by-side, using traditional and High Performance Computing resources with over 350 CPUs and 2PB of storage, to create the most accurate and detailed

cartographic products available for the planets and smaller bodies of our solar system.

Responsibilities

- Design, test, and build high performance scientific computing software
- Work on complex analytical problems in the cartographic software domain
- Mentor team members on technical solutions
- Work with planetary science data, e.g. the Lunar Reconnaissance Orbiter; Apollo 15-17; the Mars Reconnaissance Orbiter; the Mars Rovers (Spirit, Opportunity, Curiosity), Messenger, and Dawn

Requirements & Skills

Requirements

- 1 or more years of software applications development experience in C++, Java, and/or Python
- U.S. Citizenship

Desired Skills

- Strong knowledge of OO design principles
- Ability to work in a rapidly changing research driven environment
- Excellent analytical, design, and problem solving skills
- Experience refactoring code
- Demonstrated leadership in ensuring best practices
- Strong sense of ownership and drive
- Experience in technical communication with peers and non-technical stakeholders
- BS or MS in Computer Science, Engineering, Information Systems or Mathematics

About the US Geological Survey

The USGS Astrogeology Science Center has a rich history of participation in space exploration and planetary mapping. The Flagstaff Science Center was established in 1963 to provide lunar geologic mapping and assist in training astronauts destined for the Moon.

Throughout the years, the program has participated in processing and analyzing data from numerous planetary missions. Our team has assisted in finding potential landing sites for exploration vehicles, mapping neighboring planets and their moons, and conducting research to better understand the origins, evolutions, and geologic processes operating on these celestial bodies.

Pay & Benefits

See <http://www.usgs.gov/humancapital/pb/index.html>

About Flagstaff, Arizona

Less than two hours from the Grand Canyon and amid the world's largest ponderosa pine forest, our main campus sits at 7,000 feet at the base of the San Francisco Peaks. Flagstaff—or “Flag” as the locals call it—is a mountain town with a population approaching 70,000. Flagstaff offers a four-season climate unlike anywhere else in Arizona with an average of 288 days of sunshine per year and an average 100 inches of annual snowfall. Travel + Leisure magazine recently named Flagstaff among the top 10 Best College Towns in America, and Time.com has called it one of the nation’s happiest cities. Learn more about [Flagstaff](#).