



1400 WEST MARS HILL ROAD, FLAGSTAFF, AZ 86001
928-774-3358 – www.lowell.edu

POSITION ANNOUNCEMENT

SYSTEMS/SOFTWARE ENGINEER

Lowell Observatory is seeking a Systems/Software Engineer (SSE) at Lowell Observatory's Navy Precision Optical Interferometer (NPOI). NPOI is located in northern Arizona in one of the areas in the continental US with the darkest skies. The SSE is a member of Lowell Observatory's Technology Group and is responsible for the continued development and support of the instrument control, data acquisition, and user interface software at NPOI. The SSE position reports to the NPOI Project Manager.

RESPONSIBILITIES

The Systems/Software Engineer (SSE) designs, implements, and troubleshoots existing and planned upgrades to NPOI, including integrated and PC based systems. The SSE will work directly with partners and stakeholders (Lowell Observatory, US Naval Research Lab, US Naval Observatory, and contractors/outside vendors) to ensure successful implementation of the NPOI upgrades. This includes the development, support, and documentation of the instrument control, data acquisition, and user interface software, as well as developing new software to support systems upgrades and improvements. The SSE will ensure compliance with all safety requirements and quality standards. Additional responsibilities may include support for the Lowell Discovery Telescope (LDT) and other facilities, including data archiving and networking support in conjunction with Lowell's IT staff as appropriate. The SSE also will provide night-time support for telescope operators when needed to resolve time-critical software-related issues.

QUALIFICATIONS AND EXPECTATIONS

- Demonstrated ability to design effective, robust architectures for software systems with a strong focus on documentation and thorough commenting
- Attention to detailed configuration management and software testing to ensure reliability
- Experience transitioning from local file storage to modern revision control systems
- Experience with PID servo feedback systems
- Ability to organize and prioritize work and to meet timelines
- Ability to work effectively in a broad-based engineering and scientific team environment
- Strong interpersonal skills and excellent written and verbal communication skills
- Fluency with Python, C, C++, Java, and Unix shell scripting
- Familiarity with Linux operation and programming
- Experience developing and refining automated/robotic controls systems

ADDITIONAL DESIRABLE SKILLS

- Experience with software control of mechatronic systems at scientific institutions
- Familiarity with astronomy and astronomical instrumentation
- Familiarity with optical or near-IR astronomical detector control
- Extensive Linux and other open source systems experience
- Working knowledge of Windows operation and programming
- Familiarity with device driver level programming
- Familiarity with systems work, networking, and TCP/IP socket communications
- Familiarity with Wind River VXWorks systems
- Desire and ability to learn new methods and system tools

EXPERIENCE AND EDUCATION

BS or MS degree in computer science, engineering, physics/astronomy or related field and 5 years of related experience

- Due to the remote nature of the facility the candidate must have a valid driver's license or be able to acquire an AZ state driver's license upon acceptance of this position.

WORKING CONDITIONS

The SSE works largely at NPOI on Anderson Mesa, located roughly 13 miles southeast of Flagstaff, AZ at an altitude of approximately 7200 feet elevation. Environmental conditions can be unpredictable with temperature ranges varying between -20 and +80° F. Inclement winter weather conditions can also be expected which will require some degree of comfort and proficiency with driving in snowy/icy conditions.

Often working at a computer and sitting for extended periods. Moving throughout the campus, on sometimes uneven terrain. Physical installation, repair, and maintenance of systems may require standing, crouching, and reaching. The SSE will need to be on-call nights and weekends to assist with systems issues that may arise occasionally.

Status:	Full Time, Regular
FLSA Classification:	Exempt
Compensation Type:	Salary
Compensation :	\$75,000-\$85,000 DOE
Benefit Eligible:	Yes*
Location:	Anderson Mesa, AZ

To Apply:

Please send the following documents to humanresources@lowell.edu:

- Lowell Standard Application (<http://lowell.edu/about/employment>)
- Letter of interest addressing your qualifications and interest in this position
- Resume
- Phone numbers and e-mail addresses of three references

Review of applications will begin the week of January 4th, 2021. Position open until filled.

*Benefits Overview: In addition to 10 scheduled paid holidays, Lowell Observatory offers a Flexible Paid Time Off policy for all full-time, benefit eligible employees which allows you to determine how much time you need to rest and enjoy yourself outside of work. The cost of premiums for medical, life & long term disability insurances for benefit eligible employees is 100% paid by the company, and includes a contribution to either an H.S.A or HRA account for first dollar medical expenses.

Employment is subject to passing a background check

Lowell Observatory is proud to be an equal opportunity workplace and is an affirmative action employer. We are committed to equal employment opportunity regardless of race, color, ancestry, religion, sex, national origin, sexual orientation, age, citizenship, marital status, disability, gender identity or Veteran status. Lowell Observatory has always been, and always will be, committed to diversity and inclusion. We seek individuals from all backgrounds to join our teams, and we encourage our employees to bring their authentic, original, and best selves to work.

Lowell Observatory sits at the base of mountains sacred to tribes throughout the region. We honor their past, present, and future generations, who have lived here for millennia and will forever call this place home.

Lowell Observatory is committed to providing access, and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. Our non-smoking campus is at an elevation of 7,200ft/2200m, and the LDT is 40 miles south of Flagstaff at an elevation of 7,800 ft/2370m. If you need a reasonable accommodation for any part of the application and hiring process, please notify the Human Resources office for assistance.

VERSION December 8th, 2020/HR