

Posted: April 19, 2023



REVISED 4/19/23
POSITION ANNOUNCEMENT

TITLE: INSTRUMENT CONTROL SOFTWARE ENGINEER

DEPT: PHYSICS/MROI

REG

TEMP

FULL TIME

PART TIME

STARTING RATE or SALARY RANGE \$51,000-\$54,000

Employees being promoted to a higher classified position receive the minimum for the position or a pay rate adjustment of 8% whichever is greater.

All regular positions also entitle the employee to several benefits including health, dental, vision, life insurance, and retirement which is largely paid by New Mexico Tech for the employee and dependents.

INTERNAL POSTING THROUGH: Concurrent* CONSIDERATION WILL BE GIVEN FIRST TO TEMPORARY AND REGULAR TECH EMPLOYEES WHO APPLY WITHIN THE 7 DAY INTERNAL POSTING. APPLICATIONS RECEIVED AFTER THE 7 DAY POSTING MARGIN WILL BE CONSIDERED WITH OTHER OUTSIDE APPLICANTS.

JOB SUMMARY:

The MRO Interferometer uses custom software to operate all the subsystems of the facility including telescopes, enclosures, detectors, sensors and custom electronics. This position will develop distributed control software for the MROI using client/server methodologies with a special emphasis on computer control and automation. This position will also develop user interfaces, data analysis software, and hardware/software interfacing.

JOB FUNCTIONS:

- Analysis of experimental data from astronomical instruments to diagnose performance issues and develop improved control algorithms. 25%
- Design, coding and testing of software and graphical user interfaces to hardware devices using C/C++ and Java. 25%
- Bug testing for hardware/software interfaces associated with implementation under the ISS framework. 20%
- Applications of machine learning techniques to instrument control and data analysis. 15%
- Other duties as assigned. 15%

REQUIRED QUALIFICATIONS:

Master's Degree in Computer Science/Engineering or related field with a few years of computing experience and data visualization capabilities. Object oriented software development and hardware testing in a Linux environment. Knowledge of Linux, Java, and C/C++. Experience of GUI development for control of hardware systems. Experience of algorithm optimization and implementation of AI/machine learning. Ability to obtain and NM Driver's License and pass DDC to be allowed to drive NMT vehicles.

DESIRED QUALIFICATIONS:

Ph.D. or other doctorate level equivalent- Engineering field with at least one year associated computing experience with hardware and data visualization capabilities.

LIFTING REQUIREMENTS:

(f)requently, (o)ccasionally, or (s)eldom

0 - 15 pounds	F
15 - 30 pounds	O
30 - 50 pounds	O
50 - 100 pounds	S
100 + pounds	S

PHYSICAL DEMANDS:

Standing 20%	Sitting 40%	Walking 15%	Pulling
Pushing 2%	Lifting 2%	Stooping	Kneeling
Crawling 1%	Climbing 2%	Reaching	Other

Apply to: nmtjobapps@npe.nmt.edu