

Posted: June 29, 2023



**REVISED 6/29/23**  
**POSITION ANNOUNCEMENT**

**TITLE:** SENIOR SOFTWARE DEVELOPER

**DEPT:** ICASA

**REG**

**TEMP**

**FULL TIME**

**PART TIME**

**STARTING RATE or SALARY RANGE** \$80,000-\$95,000

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:**

Under minimal supervision, design, develop, secure and maintain complex software in support of ICASA's mission. Leads and mentors a team of software developers to accomplish objectives. Interacts with internal and external stakeholders and customers to understand requirements and turn into solutions.

### **JOB FUNCTIONS:**

- Design and build a variety of frontend/backend applications and interfaces.
- Promote best practices and patterns in software development.
- Write and evaluate code to ensure that it is valid, maintainable, and meets industry standards.
- Follow agile principles, frameworks and methodologies.
- Participate in design and code reviews.
- Utilize version control and continuous integration/continuous delivery methods.
- Develop strategies for effective debugging, unit and acceptance testing.
- Performs complex problem solving and assistance on diverse software applications and hardware systems for staff and customers. 40%
- Collaborate and scope requested new features and analyze user needs to determine technical requirements and specifications.
- Evaluate and determine the technical approach to software development applications.
- Estimate and delegate tasks for projects.
- Establish release management strategies.
- Collaborate with various stakeholders to develop product roadmaps.
- Organizes/leads sprints and other agile processes.
- Mentor others, create standards, and recommend new initiatives.
- Work closely with program management and ICASA leadership to keep projects within cost, schedule and scope. 40%
- Provides detailed diagrams and documentation on new software and systems.
- Provides in-depth individual and/or group instruction and training to staff and/or customers on new software and systems.
- Participates in and/or leads research and development initiatives and provides assistance in the implementation of new technologies.
- Maintains currency of knowledge with respect to hardware, software, cybersecurity, emerging technologies, industry trends, applicable laws, regulations, standards and/or systems.
- Performs miscellaneous job-related duties as assigned. 20%

## REQUIRED QUALIFICATIONS:

Bachelor's Degree in Computer Science, Software Engineering, Software Development or related field. Graduate education and/or experience that is directly related to the duties and responsibilities specified may be interchangeable on a year for year basis. 8+ years of professional software development experience. 3+ years in a mid-senior software developer position leading other developers. Extensive experience with agile methodologies. Extensive experience with a variety of open source programming languages, libraries and frameworks. Excellent teamwork, time management and interpersonal skills. Excellent oral and written communication skills. Full stack software development experience. Hands-on experience building, testing, deploying, and monitoring scalable microservices and event-driven architectures. Must be a US Citizen. Must be able to obtain and maintain a Top Secret/ SCI level security clearance.

## DESIRED QUALIFICATIONS:

Expertise in Java, Python and their ecosystems. Experience with Typescript/Javascript/HTML/CSS/REST/JSON and other common web related libraries and frameworks such as React/Angular/Vue. Experience developing and maintaining various backend databases (SQL, NoSQL). Experience with pub/sub protocols such as MQTT and Kafka. Expertise in version control systems and workflow with Bitbucket, Github, etc. Experience with JIRA and Confluence. Experience with Linux and Bash scripting. Experience with virtualization and containerization technologies, particularly Docker, Kubernetes, and Helm. Experience with application performance and security testing tools and methodologies. Understanding of various identity and authentication mechanisms to enable single sign on, multi-factor authentication, password-less login, etc. Familiarity with core services of the major cloud service providers (GCP, AWS and Azure).

This position supports the Playas Electronic Attack and Cyber Environment (PEACE) program mission to provide suitable systems and/or technical, analytical, and support services necessary for Service and Joint information warfare activities, providing advanced technology solutions for training, experimentation, exercise, and rehearsal purposes. To support critical experimentation and training events, the Cyber/Electronic Warfare (EW)-kinetic laboratory and testing environment requires understanding cyber-connected devices interacting with the physical environment found in manufacturing automation, utilities and transportation. Understanding these interactions will enable commanders to induce kinetic effects through cyber or vice versa and provide Department of Defense (DOD) with methods to help civilian authorities better protect domestic infrastructure such as dams, electric power grid and airports as well as help planning to improve the resilience of deployed bases. In addition, the cyber/EW-kinetic environment provides the opportunity to provide quick reaction testing to emerging cyber/EW threats for R&D and operations. The PEACE program is managed and executed within the Institute for Complex Additive Systems Analysis (ICASA), a research division of New Mexico Institute of Mining and Technology (NMT).

## LIFTING REQUIREMENTS:

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

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

Apply to: [nmtjobapps@npe.nmt.edu](mailto:nmtjobapps@npe.nmt.edu)