San José State University Research Foundation

<table>
<thead>
<tr>
<th>Position:</th>
<th>Senior Research Associate Software Development</th>
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<tr>
<td>DEPARTMENT:</td>
<td>NASA Ames</td>
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<tr>
<td>IMMEDIATE SUPERVISOR:</td>
<td>Project Director</td>
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<tr>
<td>POSTING DATE:</td>
<td>July 26, 2021</td>
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<tr>
<td>CLOSING DATE:</td>
<td>September 30, 2021</td>
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<tr>
<td>SALARY:</td>
<td>$90,000 – $150,000; DOE/Q</td>
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<tr>
<td>EXEMPT STATUS:</td>
<td>Full-Time, Exempt, Benefited</td>
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**GENERAL NATURE OF POSITION**

Do you want to help support NASA’s missions, but don’t want to go through astronaut training camp? Do you like making a difference in the world and want to help progress the vision of NASA?

The Department of Psychology at San José State University is involved in collaborative research with civil service scientists from Airspace Operations Laboratory (AOL) in the Human Systems Integration Division (HSID) at the NASA Ames Research Center in Mountain View, CA. We seek a senior research associate to collaborate on and engage in software development activities to further NASA’s aeronautics research.

Our work environment is very open, collaborative, and welcoming; we are a diverse and tight-knit team that enjoys off-site team building events and activities. We believe fostering a comfortable workplace for everyone is important! Our team values a healthy approach to our work, from providing adjustable desks to maintaining a balanced work-life schedule. You will contribute to our wide diversity of skills and incorporate new ideas into our environment. You will work with people across NASA, hear about upcoming missions and how we help support them.

The Airspace Operations Laboratory in the Human Systems Integration Division (HSID) at the NASA Ames Research Center is a federal facility. Due to rules imposed by NASA, HSID will not accept applications from individuals who are not U.S. Citizens or Legal Permanent Residents of the U.S.

**ESSENTIAL DUTIES & RESPONSIBILITIES**

1. Design, build, and test software for airspace-operations research.

2. Develop laboratory capabilities for real-time data collection, monitoring, and visualization.

3. Integrate third-party open source and commercial packages into existing infrastructure.
4. Prototype new aeronautics support applications in an iterative development environment.

5. Create high quality, robust, and easily maintainable software.

6. Document and track software tasks in issue tracking systems.

7. Build and enhance scripts that exercise end-to-end functionality.

8. Work on a wide range of technologies including full stack development, mobile apps, and databases.

9. Collaborate with fellow researchers to prepare, conduct, and analyze experiments relating to the use of software tools in airline operations, urban air mobility, and drones.

10. Assist in the development and preparation of papers related to the experiments performed in the AOL to be presented at various conferences held throughout the year.

INTERPERSONAL CONTACTS

- Reports to the project director.
- Interacts with SJSURF staff and civil service staff on a daily basis.

SUPERVISORY RESPONSIBILITIES

None, though may be called upon for advice and direction by others.

QUALIFICATIONS

Education and Experience

- M.S. in Computer Science, Computer Engineering or related field (or 10 years of relevant job experience involving software development) required.
- 5+ years of experience with Java required.
- 3+ years of experience with JavaScript and related web development frameworks required.
- 2+ years of experience with relational and NoSQL database system required.
- 2+ years writing scripts to automate various development and testing activities required.
- 2+ years working an agile development environment required.
- 2+ years of experience integrating multiple internal and external systems using APIs required.
- 2+ years of experience with scientific experimentation and all the various phases therein (experimental design, research methods, data mining & analysis, etc.) preferred.
- Exposure to Apple and/or Android mobile development environments required.

Knowledge, Skills, Abilities Required

- Highly organized, self-motivated, and ability to think critically required.
- Thorough understanding of programming principles and paradigms, such as OOP and MVC required.
- Understanding of Agile methodology for software development required.
- Knowledge of coding and security best practices required.
- Familiar with public-key cryptography, OAuth 2.0, and authorization services required.
- Experience with Swagger Codegen and/or OpenAPI code generation tools required.
• Willingness to work in a user-centered, design-driven development model required.
• Dedication to quality and a positive, collaborative attitude and approach to development and testing required.
• Extremely self-motivated; able to find opportunities for improvement and tackle them without external direction required.
• Methodical and detail oriented, with solid analytical skills and problem-solving ability required.
• Ability to create scalable, redundant, and high-performance software services required.
• Capacity and willingness to adopt new methodologies and skills in line with core responsibilities required.
• Willingness to share knowledge and skills and willingness/ability to help train colleagues required.
• Excellent written and oral communication skills required.
• Ability to work on-site (Mountain View, CA) required.
• Ability to work effectively and efficiently in culturally and organizationally diverse research teams required.
• Strong interpersonal skills required.

Physical Requirements
• Frequent and ongoing use of a computer terminal to conduct a variety of software development tasks.
• Strength, dexterity, and coordination and/or ability to use a computer keyboard and read a video display terminal on a regular basis.
• Work within time constraints and under pressure.
• Located at NASA Ames Research Center. Therefore, the employee must meet security qualifications for entrance to the Center, including an Agency background check.
• The location is equipped for full accessibility.

Complexity of Duties
• Exercise independent judgment in the management and completion of a diverse set of concurrent tasks, including leading specific research and/or project management efforts.

NOTE: This position description intends to describe the general nature and level of work being performed by people assigned to this job. It is not intended to include all duties and responsibilities. The order in which duties and responsibilities are listed is not significant.

BENEFITS
The San José State University Research Foundation (SJSURF) provides excellent benefits package to benefited employees. The comprehensive benefit package includes:

a) Ten company subsidized CalPERS health insurance plans to choose from (employee contributions differ according to plan and level of coverage).
b) Employer paid dental and vision for both employee and eligible dependents.
c) Life, AD&D, LTD with supplemental coverage opportunities.
d) 13 paid federal & state holidays.
e) Retirement Plan: 403 (b) employee contribution plan component and a 403 (b) employer contribution component, which vests immediately.
f) Vacation hours accruals and separate sick hours accumulations.
g) Employee discounts.
h) Paid training and professional development conferences.
The San José State University Research Foundation (SJSURF) provides excellent benefits package to benefited employees. Please visit Benefits & Compensation page to get more details.

APPLICATION PROCEDURE
To apply for this position, an applicant must submit a formal application for employment, as well as a resume and a cover letter. The applicant may do this via e-mail. The formal employment application is located on the SJSURF website on the Forms page. Due to the COVID-19 health crisis, all candidates must submit their application materials to foundation-jobs@sjsu.edu.

Please address your formal application, your resume, and your letter of interest directly to:
San José State University Research Foundation
Attn: HR/Job Code: SRA SOFTWARE NASA
E-mail: Foundation-jobs@sjsu.edu

A background check (including a criminal records check) must be completed satisfactorily before any candidate can be offered a position with the SJSURF. Failure to satisfactorily complete the background check may affect the application status of applicants or continued employment of current SJSURF employees who apply for the position.

REASONABLE ACCOMODATION
The San José State University Research Foundation (SJSURF) is committed to providing access, equal opportunity and reasonable accommodation for individuals with physical or mental disabilities in the employment, recruitment, examination, hiring and interviewing processes. If you are a job seeker with a physical or mental disability and require a reasonable accommodation to search, apply, or interview for a job opening or otherwise need a reasonable accommodation during the application and hiring process, please contact us at foundation-jobs@sjsu.edu. In the email message, please indicate your full name, phone number and the type of assistance required. You must not reveal the underlying medical reason for your needed reasonable accommodation or otherwise disclose confidential medical information.

ABOUT THE SJSU RESEARCH FOUNDATION
SJSURF employment is separate and distinct from San José State University or state of California employment. SJSURF employees are not employees of SJSU or of the state of California.

SJSURF is a non-profit auxiliary of San José State University. SJSURF is totally self-supported. The majority of the organization’s funding comes from the federal government, and other public and private entities. With annual revenues totaling over $65 million, programs managed through SJSURF cover a rich diversity of applied research, public services, and educational related activities.

SJSURF is an equal opportunity employer and does not discriminate on the basis of race, color, creed, gender, religion, marital status, registered domestic partner status, age, national origin, ancestry, physical or mental disability, medical condition, sex, genetic information, sexual orientation, military and veteran status or any other consideration made unlawful by federal, state, or local laws. It also prohibits unlawful discrimination based on the perception that anyone has any of those characteristics, or is associated with a person who has or is perceived as having any of those characteristics.