San Jose State University Research Foundation

Position: Senior Research Developer (Backend Engineering)

DEPARTMENT: Research will be done under the auspices of the Psychology Department at San José State University

IMMEDIATE SUPERVISOR: Project Director

POSTING DATE: 3/11/2019

CLOSING DATE: Posted Until Filled

SALARY: Negotiable based on experience plus excellent benefits

EXEMPT STATUS: Exempt (Salary)

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? We work for the San Jose State University Research Foundation in a partnership with NASA through grant funding.

The Psychology Department at San Jose State University is involved in collaborative research with civil service scientists from the Human-Computer Interaction (HCI) Research group of the Human Systems Integration Division at the NASA Ames Research Center in Mountain View, CA. The research is centered on the design, development, and testing of next-generation mission critical engineering systems.

We seek a Senior Backend Engineer to develop such tools to be used by NASA’s Exploration Systems Mission Directorate in future space launch systems (including launch vehicle, crew exploration vehicle, ground components) and International Space Station (ISS). The research is centered on the development, design and testing of next-generation mission ground-systems for NASA’s space explorations missions. We work for San Jose State University Research Foundation in a partnership with NASA through grant funding.

We are looking for a backend engineer to develop and maintain server-side application code, web-service APIs and internal build and release tools. You’ll be a part of a variety of software projects from the planning through implementation stages. You work with other developers, designers, and QA team members to create a critical software system used across NASA and its partners.

Our work environment is very open, collaborative and welcoming to others. We are a diverse and tight-knit team who enjoys off-site team building events and activities. Having a comfortable environment for everyone is important! Our team values a healthy approach to the workplace (from providing adjustable desks to maintaining a balanced work-life schedule). We believe in a no-status-report, no-metrics policy that just ends up being additional overhead to the staff. You will contribute to our wide diversity of skills and incorporate new ideas into our environment.
ESSENTIAL DUTIES & RESPONSIBILITIES:

1) Develop and maintain server-side application logic and web service APIs (REST/SOAP).
2) Develop and maintain internal build and release tools.
3) Troubleshoot issues and fix bugs.
4) Design and architect new software and tools.
5) Deploy software to production.
6) Collaborate across the team to continuously suggest and incorporate process improvements and industry standard applications where appropriate.

INTERPERSONAL CONTACTS:

1) Reports to the Project Director.
2) Interacts with NASA Ames civil service and Foundation research staff, including student assistants, on a daily basis.
3) Works daily with the on-site design, QA, and development teams at NASA Ames.

QUALIFICATIONS:

1) Education and Experience
   a) BS/BA in Computer Science or related discipline required.
   b) At least 5 years of experience developing in the LAMP Stack (Linux, Apache, MySQL, Perl) required.
   c) At least 5 years of experience developing and integrating with web services APIs (e.g. REST, SOAP) required.
   d) At least 5 years of experience in all phases of the development lifecycle including deployment required.
   e) At least 5 years of experience developing software in a production environment required.

2) Knowledge, Skills, Abilities required
   a) Knowledge of Object-oriented Perl programming
   b) Strong knowledge of Relational Databases (MySQL).
   c) Ability to use Apache Webserver for configuration/troubleshooting.
   d) Solid knowledge and foundations with Linux and command line utilities (grep, sed, awk.)
   e) Knowledge of Version control with Git
   f) Ability to optimize code, benchmark performance, and systematically analyze areas for improvement.
   g) Strong verbal and written communication skills.
   h) Ability to integrate a culturally and organizationally diverse research and development team

Desired/Optional Knowledge, Skills and Abilities:

- Knowledge of Bash shell scripting
- Knowledge of NodeJS/Express
- Knowledge of React/Redux
- Ability to use Java/Tomcat
- Strong Ability in CI/CD automation tools
- Knowledge of MySQL schema design, tuning/optimization
- Knowledge of Redis.
3) **Physical Requirements.**
   a) Occasional travel to other NASA sites may be required.
   b) Located at the NASA Ames Research Center. Therefore, the employee must meet security qualifications for entrance to the Center, including an Agency background check.
   c) Employee will be a US citizen or a Permanent Resident.
   d) The location is equipped for full accessibility.

4) **Complexity of Duties**
   a) Exercise independent judgment in the management and completion of a diverse set of concurrent tasks, including leading specific development efforts.

5) **Benefits**
   **The comprehensive benefit package includes:**
   a) Nine Health Insurance Plans to choose from
   b) Free dental and vision for employee and family
   c) Paid Federal and State Holidays
   d) Retirement Plan: 403 (b) employee contribution plan component and a 403 (b) employee contribution
   e) Vacation and separate sick plans
   f) Employee Discounts
   g) Paid Training and Conferences
   h) Increases based on merit (performance)

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**SUPERVISORY RESPONSIBILITIES:**

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

**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 or by regular mail. The formal employment application is located at [http://www.sjsu.edu/researchfoundation/open/Employment%20application%201-10-18%20pdf.pdf](http://www.sjsu.edu/researchfoundation/open/Employment%20application%201-10-18%20pdf.pdf)

It may also be obtained from the Research Foundation through its web site at [http://www.sjsu.edu/researchfoundation/open/index.html](http://www.sjsu.edu/researchfoundation/open/index.html).

An applicant may also apply in person by visiting the Research Foundation, located at 210 North 4th Street, 4th Floor, San Jose, CA (corner of St. James and North 4th Streets). Please address your formal application, your resume and your letter of interest directly to:

San Jose State University Research Foundation  
Attn: HR/Job Code NASA SRD ENG  
210 North 4th Street  
San Jose, CA  95112  
E-mail: foundation-jobs@sjsu.edu

The Research Foundation provides excellent benefits package to benefited employees. Please visit [http://www.sjsu.edu/researchfoundation/humanresources/healthbenefits/index.html](http://www.sjsu.edu/researchfoundation/humanresources/healthbenefits/index.html) to get more details.
Research Foundation employment is separate and distinct from San Jose State University or State of California employment. Research Foundation employees are not employees of either SJSU or of the state of California.

The San Jose State University Research Foundation (SJSURF) is a non-profit auxiliary of San Jose 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.

SAN JOSE STATE UNIVERSITY RESEARCH FOUNDATION 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.

The SJSURF has implemented California State University Executive Order 1083 (http://www.calstate.edu/EO-1083.pdf). By policy, all SJSURF employees are mandated reporters for suspected child abuse or neglect and are expected to undergo formal training in accordance with the directives of the Executive Order.

The SJSURF has also implemented California State University Policy Memorandum HR 2015 – 08 (http://www.calstate.edu/HRAdm/pdf2015/HR2015-08.pdf).

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.