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 in the Human Systems Integration Division (HSID) at the NASA Ames Research Center in Mountain View, CA. We seek a 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 that 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.

---

**ESSENTIAL DUTIES & RESPONSIBILITIES:**

1. Design, build, and test software for airspace-operations research.
2. Develop laboratory capabilities for virtual-reality and augmented-reality needs.
3. Integrate VR/AR software solutions with VR/AR hardware platforms.
4. Deploy custom software applications for wearable devices (e.g., HoloLens) and mobile devices (e.g., tablet/smartphone).
5. Document and track software tasks in issue tracking systems.
6. Maintain awareness and expertise in Unity, Mixed Reality Tool Kit (MRTK2), ARKit, and other related development environments and VR/AR technologies.
7. Collaborate with fellow researchers to prepare, conduct, and analyze experiments relating to the use of software tools in airline operations.
8. 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.
9. Other duties as assigned.

---

**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.

---

**SUPERVISORY RESPONSIBILITIES:**

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

---

**QUALIFICATIONS:**

1) **Education and Experience**
   - B.S. or M.S. in Computer Science, Computer Engineering or related field (or 4 years of relevant job experience involving software development) is required.
   - 3 or more years of experience with VR/AR software development and hardware deployment is required.
   - 3 or more years of experience with Java, preferably also with JavaFX is required.
   - At least one year of experience with web development e.g. CSS, HTML, SQL, XML, Apache, nginx, etc. is required.
   - At least 6 months of experience with scientific experimentation and all the various phases therein (experimental design, research methods, data mining & analysis, etc.) is preferred.
2) Knowledge, Skills, Abilities Required

a) Highly organized, self-motivated, and ability to think critically.
b) Thorough understanding of programming principles and paradigms, such as OOP and MVC.
c) Understanding of Agile methodology for software development.
d) Knowledge of coding and security best practices.
e) Willingness to work in a user-centered, design-driven development model.
f) Dedication to quality and a positive, collaborative attitude and approach to development and testing.
g) Extremely self-motivated; able to find opportunities for improvement and tackle them without external direction.
h) Methodical and detail oriented, with solid analytical skills and problem-solving ability.
i) Capacity and willingness to adopt new methodologies and skills in line with core responsibilities.
j) Willingness to share knowledge and skills and willingness/ability to help train colleagues.
k) Excellent written and oral communication skills.
l) Ability to work on-site (Mountain View, CA).
m) Ability to work effectively and efficiently in culturally and organizationally diverse research teams.
n) Strong interpersonal skills required.

3) 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

4) 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 with 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.
- Employee must be a US citizen or Permanent Resident.
- The location is equipped for full accessibility

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 comprehensive benefit package includes:

a) Ten company subsidized CAL Pers health insurance plans to choose from (employee contributions differ according to plan and level of coverage)
b) Free 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. Note:
g) Employee Discounts
h) Paid Training and Conferences

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 maybe be obtained from the Research Foundation through its website at http://www.sjsu.edu/researchfoundation/open/index.html. Due to the COVID-19 health crisis, all candidates must submit their application materials via the foundation-job@sjsu.edu email address. Please be sure to include the HR job code of: NASA RASD on the formal employment application.

Reasonable Accommodation
The San José State Research Foundation 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. You may also call (408) 924-1400 from 8:00am to 5:00pm (PST), Monday through Friday, excluding holidays, to get assistance.

The Research Foundation provides excellent benefits package to benefited employees. Please visit: https://www.sjsu.edu/researchfoundation/humanresources/benefits/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.

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.