San José State University Research Foundation

Position: Research Associate

DEPARTMENT:	NASA Ames
IMMEDIATE SUPERVISOR:	Project Director, SJSURF Human Factors Program
POSTING DATE:	March 17, 2022
CLOSING DATE:	Open Until Filled
SALARY:	$80,000-$95,000 annually
EXEMPT STATUS:	Full-Time, Exempt, Benefited

GENERAL NATURE OF POSITION

The Department of Psychology at San José State University is involved in collaborative research efforts with civil service scientists from the Aerospace Cognitive Engineering Laboratory (ACEL) at the NASA Ames Research Center in Mountain View, CA. The research is centered on several exciting new NASA programs investigating future Human-Automation Interaction in Advanced Air Mobility and traditional aviation domains. We seek a research associate who will work on these programs in conjunction with other researchers in the Aerospace Cognitive Engineering Lab.

ESSENTIAL DUTIES & RESPONSIBILITIES

1. Develop models for analysis of Human-Automation Interaction performance.
2. Assist in development of aircraft pilot interfaces for real-time simulation of advanced aircraft automation.
3. Assist in development of methods for evaluation of Human-Automation Interaction.
4. Assist in administration, data collection and set up of ACEL projects.
5. Analyze data collected in ACEL studies.
6. Assist in validation of Human-Automation Interaction models with data from ACEL studies.
7. Attend weekly group meetings and present research results.
8. Produce reports and present work to relevant audiences.

INTERPERSONAL CONTACTS

Reports to the project director. Interacts and collaborates with SJSU Research Foundation research staff and NASA civil service staff daily.

SUPERVISORY RESPONSIBILITIES

No supervisory responsibilities.

QUALIFICATIONS

Education and Experience

- MS in Aerospace Engineering or related field required.
- Education in the following areas: aerospace flight dynamics and control; aircraft simulation; system design and analysis; data analysis and validation; database testing and development is required.
- At least one year of experience with C++, Python, MATLAB, R, SQL MATLAB is required.
- At least one year of experience with modeling Human-Automation Interaction is required.
- At least one year of experience with cockpit interface design, automation and simulation is required.
- Experience in applied research setting is highly desired.

Knowledge, Skills, Abilities Required

- Strong verbal and written communication skills.
- Ability to work both as a member of a team and independently as required.
- General knowledge of flight control, airspace operations, and fixed/rotary wing aircraft and controls.
- General knowledge of cockpit interface design and programming, autonomy, and simulation.
- General knowledge of modeling of Human-Automation Interaction.
- General knowledge of Advanced Air Mobility.
- Excellent understanding of experimental design and statistics.
- Good understanding of the basics of modeling, flight testing, and simulation environments.

Physical Requirements

- Must be willing to travel domestically.
- Located at the NASA Ames Research Center. Therefore, this employee must meet security qualifications for entrance to the Center.
- Candidate will be a U.S. citizen or permanent resident.

Complexity of Duties

- Exercise independent judgment in the management and completion of a diverse set of tasks.

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) Nine 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) 14 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 hour accruals and separate sick hour accumulations.
g) Employee discounts.
h) Paid training and professional development conferences.

Please visit the Benefits & Compensation page on the SJSU Research Foundation website for more detailed information.

COVID-19 VACCINATION POLICY

As required by the CSU Vaccination Policy, all new hires must be fully vaccinated against COVID-19 starting on September 30, 2021. Fully vaccinated means it has been 14 days after the second dose of the Pfizer or Moderna vaccine has been given, or it has been 14 days after the one dose of the J&J vaccine has been given. Additionally all employees are required to have booster shots and provide proof to SJSU by 02/28/2022 or after the six months from the final dose of the original vaccination, whichever is later. Proof of being fully vaccinated does not need to be disclosed until a job offer has been made, and proof must be submitted after the acceptance of the job offer. New hires may request a reasonable accommodation of the COVID-19 vaccination requirement based on medical or religious reasons. New hires must submit their request for an accommodation form after they accept the job offer, and before their scheduled start date. The reasonable accommodation provided to the employee, if any, will depend on the employee's job and the applicable facts, but it may include weekly COVID-19 testing. New hires who do not submit, before their scheduled start date, proof of being fully vaccinated or a request for reasonable accommodation will have their job offer revoked.

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 formal employment application is located on the SJSURF website on the **Forms page**. **All candidates must submit their application materials to foundation-jobs@sjsu.edu. Please add PROJ ASSOC NASA to the subject line of the email.**

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.