San José State University Research Foundation

Position: Research Associate: Aviation & Air Traffic Management

DEPARTMENT: NASA Ames Research Center
IMMEDIATE SUPERVISOR: Project Director
POSTING DATE: 09/14/2022
CLOSING DATE: Open Until Filled
SALARY: $90,000-$110,000 annually/DOE
EXEMPT STATUS: Full-Time, Exempt, Benefited

GENERAL NATURE OF POSITION

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

The research performed at the AOL is a collaborative, team-based activity that uses an advanced human-in-the-loop simulation environment to investigate the roles, responsibilities, and requirements for human operators and automation in future air traffic management systems. Research participants include aviation industry partners, professional air traffic service providers, pilots, and aviation operators who help to develop and test novel aviation concepts, technologies, or procedures for designing and testing new air traffic operations in the global and United States National Airspace System. Research team members perform novel aeronautics research, conduct vehicle and system performance analyses, design tabletop, fast-time, and human-in-the-loop studies, as well as test, evaluate, and analyze results from the studies, and finally write, present, and publish the results.

The ideal candidate for this position would be comfortable moving from system-to-system to help develop and prepare for real-time simulations. We are seeking someone who is smart, a fast learner, disciplined, professional, and is willing and able to learn the details of our simulation platform, along with how to use it to explore novel air traffic operations.

The AOL, like NASA, prizes a healthy work-life balance. We believe that fostering a comfortable workplace for everyone is important! Our work environment is open, collaborative, and welcoming; we are a diverse and tight-knit team that enjoys off-site team building events and activities. 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 AOL in the Human Systems Integration Division at NASA Ames Research Center is a federal facility. Due to rules imposed by NASA, the Division 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 novel concepts and procedures for airspace-operations research using high-fidelity simulation environment and other available tools.
2. Develop laboratory capabilities for simulation, real-time data collection, and analysis.
3. Collaborate with other researchers to prepare, conduct, and analyze experiments relating to the use of software tools in air traffic operations, drones, and other novel aviation vehicles.
4. Publish and present the research findings at conferences and other research venues.

INTERPERSONAL CONTACTS

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

SUPERVISORY RESPONSIBILITIES

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

QUALIFICATIONS

Education and Experience

- Master’s degree in Aerospace Engineering or related discipline earned within the first six months of hiring.
- Two plus years of experience with aviation research required.
- Two plus years of experience in transportation and/or aerospace engineering required.
- Two plus years working an agile development environment a plus.
- Two plus years working with high-fidelity simulation environment a plus.
- Two plus years working with aviation modeling and simulation tools a plus.

Knowledge, Skills, Abilities Required

- Methodical and detail oriented with solid analytical skills and problem-solving ability required.
- Capacity and willingness to adopt new methodologies and skills in line with core responsibilities required.
- Willingness to share knowledge and skills, as well as willingness and ability to help train colleagues required.
- Excellent written and oral communication skills required.
- Ability to work effectively and efficiently in culturally and organizationally diverse research teams required.
- Knowledge of scientific experimentation and the various phases therein (experimental design, research methods, data mining & analysis, etc.) desired.
• Knowledge of inter- and intra-process communications desired.
• Work within time constraints and under pressure.

Physical Requirements

• Ability to work on-site when needed (NASA Ames Research Center). Employee must meet security qualifications for entrance to the Center, including an Agency background check.
• 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, as well as read a video display terminal on a regular basis.
• Ability to install and move minor pieces of equipment: monitors, computers, joysticks, projectors, etc.
• 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 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.

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 NASA RA AA 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 ACCOMMODATION
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.