Position: Senior Project Associate (AOL)

DEPARTMENT: Psychology
IMMEDIATE SUPERVISOR: Dr. Sean Laraway
POSTING DATE: December 3, 2015
CLOSING DATE: December 17, 2015
SALARY: Commensurate with degree and experience
EXEMPT STATUS: Exempt

GENERAL NATURE OF POSITION:

The Psychology Department at San Jose State University is involved in collaborative research with civil service scientists from the Airspace Operations Laboratory (AOL) of the Human Systems Integration Division at the NASA Ames Research Center in Mountain View, CA. The research is centered on Airspace Systems and will be conducted in the Airspace Operations Laboratory. We are seeking an individual with knowledge and experience in air vehicle modeling and simulation research to participate in the development of a simulation and visualization platform for management of Unmanned Aerial Systems in the National Airspace System (UAS in the NAS).

ESSENTIAL DUTIES & RESPONSIBILITIES:

- Collaborate with fellow researchers to prepare, conduct, and analyze advanced air traffic control simulations using novel departure trajectory modeling and analysis tools.
- Develop and design effective simulation and visualization requirements and metrics for integrating UAS in the NAS with Next Generation Air Transportation System (NextGen) concepts.
- Collaborate on developing and testing simulation traffic scenarios that allow for integration of advanced head-down display symbology.
- Analyze and model results from experiments investigating future air traffic control concepts that integrate UAS in the NAS.
- Maintain currency with the current operational trends and research findings within the airspace operations domain.
- Participate in projects contributing to development and enhancement of Multi-Aircraft Control System (MACS) and its extension to the integration of UAS in the NAS.
- Support the development and preparation of publications related to the experiments performed in the AOL to be presented at various conferences held throughout the year.
QUALIFICATIONS:

1) Education and Experience
   - Ph.D. in Aerospace Engineering or closely-related field.
   - Minimum of 10 years of demonstrated experience in the simulation and modeling of human interaction with advanced aviation control and air-traffic management systems.

2) Knowledge, Skills and Abilities required
   - Familiarity with aircraft control, air-traffic management, and proposed future concepts.
   - Experience in the simulation and modeling of human automation integration within aviation systems.
   - Knowledge of interface design and evaluation procedures.
   - Ability to proficiently use computers configured to simulate a real-time aviation environment.
   - Proficiency with advanced modeling and simulation software such as MATLAB, SIMULINK, and related engineering software.
   - Ability to effectively communicate through verbal and written correspondence with outside contacts including other NASA research labs, software developers, and contracted pseudo pilots and air traffic controllers.
   - Ability to simultaneously work independently and as a team member on several tasks within the project.

3) Physical requirements
   - Located at the NASA Ames Research Center. Therefore, this employee must meet security qualifications for entrance to the Center.

4) Complexity of Duties
   - Exercise independent judgment in the management and completion of a diverse set of tasks.

INTERPERSONAL CONTACTS:
Reports to the Project Director. Interacts with Foundation research staff and civil service staff on a daily basis.

SUPERVISORY RESPONSIBILITIES:
None.
APPLICATION PROCEDURE

To apply for this position, you may submit a letter of interest and a resume or an application. An application and other information may be obtained from the Research Foundation Human Resources Department, through the Research Foundation’s web site at foundation-jobs@sjsu.edu or in person by visiting the Foundation, located at 210 North 4th Street, 4th Floor, San Jose, CA (corner of St. James and North 4th Streets). An application will be required for those interviewed.

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

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