



OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION
RESEARCH PARTICIPATION PROGRAM
NATICK SOLDIER RESEARCH, DEVELOPMENT & ENGINEERING COMMAND (NSRDEC)
NATICK, MASSACHUSETTS

Cognitive Science Project at Natick, MA

Project # NSRDEC-AL-2010-336

The Research Participation Program for the U.S. Army Natick Soldier Research Development & Engineering Center (NSRDEC) provides opportunities to participate in NSRDEC's on-going and applied research and development projects through its programs to maximize the Warrior's survivability, sustainability, mobility, combat effectiveness and quality of life by treating the Soldier as a System. NSRDEC is focused on delivering world class research, development, systems engineering and services with a unique human-centric focus by: cultivating a highly motivated, expert and agile workforce; exceeding customer and stakeholder expectations; delivering an unprecedented pace and honoring commitments; and fostering long term strategic partnerships and collaborations with key customers, other government agencies, industry, and academia. Project areas disciplines include Engineering, Biology, Physics, Chemistry, and Material Science.

PROJECT DETAILS

An appointment is available at NSRDEC's (Natick, MA) Cognitive Science Team in the Human Systems Integration & Sciences Division, WarSTAR Directorate.

This appointment includes, but is not limited to, the following:

- Assist with designing, programming, implementing, and maintaining immersive virtual environments that contain interactive avatars. Assist researchers during each phase of experimental planning, design, and human data collection.
- Project requires performing in a multidisciplinary environment and on multiple projects in parallel.
- Delivering final products to researchers according to deadlines; adapt existing code from other sources or authors to current user needs; experience developing modules and scripts for users of differing backgrounds and experience; experience with and an interest in developing 3D models for virtual environments using commercial products (e.g. 3D StudioMax); experience troubleshooting and debugging software code; and the ability to write clear and concise code comments, user and troubleshooting guides, and technical reports.

ELIGIBILITY REQUIREMENTS

Applicants should have received a **bachelor's or master's degree in Computer Science** within five years of the desired start date, or completion of all requirements for the degree should be expected on or about the starting date. Applicants with experience in object-oriented programming languages (C++, Python, Java, etc.) and experience in some or all of the following areas: 3D graphics, artificial intelligence, mobile robotics, game design (level design, character AI scripting), human-computer interactions, human factors, user-experience research, computational modeling, dynamic systems, advanced mathematics, and statistical analysis, are preferred. Background knowledge in psychology, cognitive science, neuroscience, physics, or applied mathematics is beneficial. Experience with or knowledge of current virtual reality technologies (e.g. head-mounted displays, position tracking systems, software platforms) is also advantageous. Other applicants will be considered on a case-by-case basis. The program is open to all qualified U.S. citizens without regard to race, sex, religion, color, age, physical or mental disability, national origin, or status as a Vietnam era or disabled veteran.

The participants will be selected based on academic records, recommendations, applied research interests and compatibility of background with applied research programs and projects at Natick, MA.

The initial appointment is for **one year** and may be renewed for up to a total of three years based upon recommendation of NSRDEC and subject to availability of funds. The appointment is **full time** at Natick, MA.



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The participant will receive a monthly stipend. The stipend rate is determined based upon level of education, training, and experience. Inbound travel and moving expenses are reimbursed according to established policies. Travel and other costs will also be reimbursed for training related to the project and approved by ORISE and the host installation.

The participant must show proof of health and medical insurance. Health plans are available through the Oak Ridge Institute for Science and Education for Postgraduate Internship participants. The appointment is full time at the host installation.

APPLICATION and DEADLINE

Applications are accepted and processed on a continuing basis. The Research Participation Program for NSRDEC is administered by the Oak Ridge Institute for Science and Education. Please reference **Project # NSRDEC-AL-2010-336** when calling, emailing, or writing for information. For immediate consideration applicants may forward resumes or vitas to the email address listed below. Additional information and application material can be found on the following website www.ornl.gov/Maryland.