

PREP Research Associate

This position is part of the National Institute of Standards and Technology (NIST) Professional Research Experience Program (PREP). NIST recognizes that its research staff may want to collaborate with researchers at academic institutions on specific projects of mutual interest and, therefore, requires those institutions to be recipients of a PREP award. The PREP program involves staff from a wide range of backgrounds conducting scientific research across various fields. Individuals in this position will perform technical work supporting the collaboration's scientific research.

Research Title: Human-Centered AI Research and Evaluation (*part-time position, 1/1/27-12/31/27*).

The work will entail:

The National Institute of Standards and Technology (NIST) is developing human-centered approaches to AI evaluation through research on perceptions and use of AI systems. Human-centered evaluations of AI systems depend on a variety of methods for capturing and measuring interactions between humans and AI systems. The candidate will assist in designing and executing human-AI interaction research. The candidate will actively participate in NIST measurement science and be involved in developing human-centered evaluations of AI technologies. The candidate will work alongside world-class researchers at NIST.

U.S. Citizen is Preferred.

Key responsibilities will include but are not limited to:

- Design/conduct human-subject studies (experimental design, surveys, and/or interviews).
- Conduct data analysis of human-subject experiments, surveys and/or interview data using inferential statistical methods and qualitative thematic and grounded theory analysis
- Perform literature surveys relevant to HCAI, human-AI interaction, and AI evaluation
- Develop infrastructure and approaches for human-centered AI evaluation
- Write/prepare reports, research papers, and presentations of project information at internal and external meetings

Qualifications

The individual must have the following **minimum** knowledge, skills, and abilities.

- Background in any of the following or comparable fields: Computer Science, Human-Computer Interaction (HCI), Industrial/Organizational (I/O) Psychology, Cognitive Psychology, Human Factors/Engineering Psychology, Psychometrics, Economics.
- Education level: graduate student or higher.
- Strong background in quantitative and/or qualitative research methodology.

- Experience with human subjects research on AI use and adoption.
- Programming skills and experience creating tools for human-centered AI evaluation.
- Knowledge/interest in human-computer interaction and human-AI interaction.
- Knowledge/interest in machine learning and AI test and evaluation.
- Ability to work both in teams and independently.
- Strong oral and written communication skills.

Number of Positions and Hours/Week

- 1 position, part-time at 20 hours/week
- The details of the work arrangement are negotiable, but the position is envisioned to be telework, with the possibility of occasional in-person meetings on the NIST Gaithersburg campus.

Privacy Act Statement

Authority: 15 U.S.C. § 278g-1(e)(1) and (e)(3) and 15 U.S.C. § 272(b) and (c)

Purpose: The National Institute for Standards and Technology (NIST) hosts the [Professional Research Experience Program \(PREP\)](#) which is designed to provide valuable laboratory experience and financial assistance to undergraduates, post-bachelor's degree holders, graduate students, master's degree holders, postdocs, and faculty.

PREP is a 5-year cooperative agreement between NIST laboratories and participating PREP Universities to establish a collaborative research relationship between NIST and U.S. institutions of higher education in the following disciplines including (but may not be limited to) biochemistry, biological sciences, chemistry, computer science, engineering, electronics, materials science, mathematics, nanoscale science, neutron science, physical science, physics, and statistics. This collection of information is needed to facilitate administrative functions of the PREP Program.

Routine Uses: NIST will use the information collected to perform the requisite reviews of the applications to determine eligibility, and to meet programmatic requirements. Disclosure of this information is also subject to all the published routine uses as identified in the Privacy Act System of Records Notices: NIST-1: NIST Associates.

Disclosure: Furnishing this information is voluntary. When you submit the form, you are indicating your voluntary consent for NIST to use of the information you submit for the purpose stated.