

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:

Transforming the NIST Publishing Process to be AI-Ready

The work will entail:

The candidate will work with NIST staff to conceive of and pilot novel approaches to NIST's current publication process, including development of AI-ready versions of active NIST publications (e.g., the Cybersecurity Framework) and other digital tools to support implementers of NIST publications.

U.S. Citizen Preferred

Key responsibilities will include but are not limited to:

- Investigating emerging AI-ready publication methods at other research institutions.
- Investigating emerging technologies, best practices, supporting processes, and KPIs that could transform the NIST publication process into one that supports both human readers and AI agents.
- Designing options for a publication system and workflow optimized for external AI agents.
- Identifying options for public-facing tools to support external practitioners that implement NIST cybersecurity and privacy publications like the Cybersecurity Framework.
- Designing a possible pilot study to assess the feasibility of the proposed AI-ready publication approach and tools.
- Presenting findings and the proposed approach at internal meetings.
- Ensuring that findings and documentation have been archived or otherwise transmitted to the larger organization.

Qualifications

- A Bachelor's degree in Information Systems, Computer Science, or a related field.
- Experience building and testing information systems.
- Experience in a research environment.
- Experience with Python, C, and Java.

- Skilled in technical writing, research methodology development, creative problem solving.
- Knowledge of markdown, retrieval models, language models, natural language processing, database administration practices a plus.

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.