

Graduate Research Assistantship at the School of Information Sciences – NLP (50% RA, Spring 2026)

The ScienceNLP Lab at the School of Information Sciences (iSchool) is seeking a Graduate Research Assistant (50%) with expertise in natural language processing/text mining (NLP), artificial intelligence/machine learning (AI/ML), and data science and interest in scholarly communications and biomedical sciences. The RA will work under the supervision of Dr. Halil Kilicoglu on a NIH-funded project, *Automated Indexing for Publication Types and Study Designs*.

Project Description: Accurate indexing of biomedical publications by topic, publication type, and study design is essential for effective retrieval from bibliographic databases such as PubMed and evidence synthesis. The rapid growth of published literature has made manual indexing unsustainable. While machine learning methods now assist with indexing to some extent, no automated system currently provides comprehensive indexing across all publication types and study designs. In this project, we develop and validate NLP/AI models that cover a broad range of study designs, article types, users, and use cases, and aim to disseminate the results in formats tailored to different user needs.

Duties include:

- NLP/AI literature review and research
- Development and validation of robust NLP/AI models and their integration into applications
- Collaboration with domain experts and developers
- Biomedical literature data curation, management, and analysis (PubMed, PMC, etc.)
- Contribution to scientific publications

Required qualifications:

- Enrollment in a PhD program (or exceptional MS student with relevant research experience) in Information Science, Informatics, Computer Science, Engineering, Statistics, Linguistics, or a related field
- Strong foundation in NLP/AI methods and desire to learn more
- Strong Python programming and math/statistics skills
- Demonstrated experience with NLP/AI frameworks such as PyTorch, HuggingFace, and large language models (LLMs)
- Experience with training/validating ML models on HPC infrastructure
- Excellent analytical/critical thinking skills
- Excellent communications skills in written and spoken English
- Effective time management skills, attention to detail

Preferred qualifications:

- Publication record in NLP, AI/ML, biomedical informatics, or related fields
- Experience working in multidisciplinary teams
- Interest in topics such as science of science, evidence synthesis, reproducibility

Interested candidates should send their CV/resume and a short statement of interest to Halil Kilicoglu (halil@illinois.edu). Review of applications will begin immediately. Applications will be accepted until the position is filled.