

ASHLEY SHIN

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Interests: information retrieval, natural language processing, representation learning, ML for medicine, ethics

EDUCATION

PhD in Computer Science University of California, San Diego 2024 – present

Advisor: Julian McAuley

BA in Philosophy University of California, Santa Barbara 2022

Relevant Coursework: Data Structures, Algorithms, Discrete Math, Linear Algebra, Real Analysis, Symbolic Logic, Topology; Ethics, Philosophy of Language, Philosophy of Science, Metaphysics.

EXPERIENCE

National Library of Medicine, National Institutes of Health Bethesda, MD

Research Fellow 2022 – 2024

- Advised by Dr. Qiao Jin and Dr. Zhiyong Lu in bioNLP group, NCBI/NLM/NIH
- Research spanning biomedical natural language processing (bioNLP), information retrieval, and machine learning, aimed at improving PubMed, an academic search engine used by 7 million researchers

HONORS

NSF Graduate Fellowship CSGrad4US, 2023 cohort. Selected based on demonstrated potential in pursuing a doctorate in a CISE field. \$159k in total funding upon enrollment in PhD program.

Top 3, BioASQ Challenge¹ 2023 Represented NCBI/NLM at BioASQ, document retrieval subtask. First postbac fellow to lead NLM team at BioASQ. Past NLM participants were postdocs and staff scientists.

NIH Intramural Research Training Award Selected for postbaccalaureate training in biomedical research at the National Institutes of Health

4th place, UCSB ACM-ICPC 2022 Regional algorithmic programming contest.

2nd place, Stanford ProCo 2015 Algorithmic programming contest in the style of ACM-ICPC.

PUBLICATIONS

[1] **Ashley Shin**, Qiao Jin, Zhiyong Lu. Harnessing PubMed User Query Logs for Post Hoc Explanations of Recommended Similar Articles. *Under review 2024*. [link]

[2] **Ashley Shin**, Qiao Jin, Zhiyong Lu. Multi-stage Literature Retrieval System Trained by PubMed Search Logs for Biomedical Question Answering. *CLEF (BioASQ workshop) 2023*. [link]

[3] Qiao Jin, **Ashley Shin**, Zhiyong Lu. LADER: Log-Augmented DENSE Retrieval for Biomedical Literature Search. *ACM SIGIR (Information Retrieval) 2023*. [link]

SKILLS

Languages Python, Java, C++, JavaScript

Libraries Pytorch, Hugging Face, FAISS

Tools Git, CUDA, Google Cloud

¹BioASQ Biomedical Semantic Question Answering Challenge. Past participants include Google Research, UCSD, U. Mass.