

Title: Effective and Efficient Knowledge-Intensive NLP

Abstract:

Knowledge-intensive NLP tasks are the tasks that humans could not reasonably be expected to perform without access to external knowledge sources such as search engines, Wikipedia, dictionaries, and knowledge bases. They include open-domain question answering, commonsense reasoning, fact checking, etc. The state-of-the-art performance on such kinds of tasks is usually delivered by knowledge-augmented NLP solutions. They look for useful knowledge to infer the output from input. However, the external data are heterogeneous and created independently from the task input; also, indexing and retrieval are much space and time consuming. In this talk, I will introduce three of our recent work in EMNLP 2022, ICLR 2023, ACL 2023, and a few preprints on effective and efficient knowledge augmentation. Since three conference tutorials in ACL/EMNLP, a successful workshop at AAAI 2023, and an incoming workshop at KDD 2023, this area of study has established a growing and enduring community. Please join us!

Bio:

Meng Jiang is an Assistant Professor in the Department of Computer Science and Engineering at the University of Notre Dame. He will become an Associate Professor with tenure effective July 1, 2023. He is interested in data mining and natural language processing. His data science research focuses on graph and text data for applications such as question answering, query understanding, online education, user modeling, and mental healthcare. He received the NSF CAREER award in 2022.

