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 achieved by knowledge-augmented NLP solutions. They look for useful knowledge to augment the input for learning and prediction. However, the external data are heterogeneous and created independently from the task input; also, indexing and retrieval are expensive in time and space. In this talk, I will introduce our recent work in EMNLP 2022, ICLR 2023, and ACL 2023 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 Associate Professor in the Department of Computer Science and Engineering at the University of Notre Dame. He received B.E. and PhD from Tsinghua University. He was a visiting PhD at CMU and a postdoc at UIUC. 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 was an NSF CAREER awardee.