Title: Novel Methods that Learn to Augment Graph Data

Abstract:
Data augmentation techniques have been widely used to increase the amount of data by adding slightly modified copies of existing data or newly created synthetic data. It helps reduce overfitting in machine learning models. While the learning approaches for image and text data augmentations have been studied, there is very little work on learning for graph data augmentation (GDA). In this talk, I will introduce our work in AAAI 2021, CIKM 2021, ICML 2022, and KDD 2022 on effective graph data augmentation. Our GDA methods for graph neural networks cover node-level, link-level, and graph-level tasks.

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, machine learning, and natural language processing. His data science research focuses on graph and text data for applications such as question answering, query understanding, user modeling, material discovery, online education, and mental healthcare. He received the CAREER Award from the National Science Foundation. He has delivered 14 conference tutorials and organized 7 workshops. He is a Senior Member of ACM and IEEE.