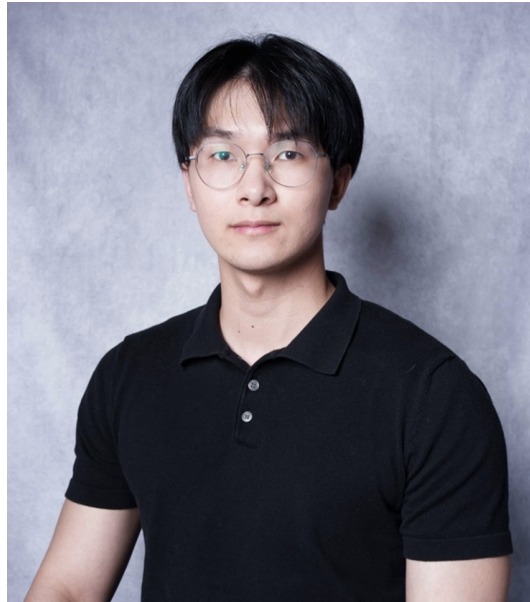


# Deep Learning on Graphs: A Data-Centric Exploration



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Tuesday, Jan 16th, 2024

12:00 – 13:00 PM

BMI Classroom 4004

Woodruff Memorial Research Building

or

Join us on Zoom link:

<https://zoom.us/j/99167116049>

Meeting ID: 99167116049



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**Abstract:** Many learning tasks in Artificial Intelligence require dealing with graph data, ranging from biology and chemistry to finance and education. Graph neural networks (GNNs), as Deep Learning models have shown exceptional capabilities in learning from graph data. Despite their successes, GNNs often grapple with challenges stemming from data quality and size. This talk emphasizes a data-centric approach to enhance GNN performance. First, I will introduce a model-agnostic framework that enhances the quality of imperfect input graphs, thereby boosting prediction performance. Next, I will demonstrate methods to significantly reduce graph dataset sizes while retaining essential information for model training. These data-centric strategies not only enhance data quality and efficiency but also complement existing models. Finally, I will introduce recent advances in graph generation and data-efficient learning. Join us to explore innovative approaches for overcoming data-related challenges in graph data mining.

**Bio:** Wei Jin is an Assistant Professor of Computer Science at Emory University. He obtained his Ph.D. from Michigan State University in 2023. His research focuses on graph machine learning and data-centric AI, with notable accomplishments such as AAAI New Faculty Highlights, KAUST Rising Star in AI, Snap Research Fellowship, Most Influential Papers in KDD and WWW by Paper Digest, and top finishes in three NeurIPS competitions. He has organized tutorials and workshops at top conferences, and published in top-tier venues such as ICLR, KDD, ICML, and NeurIPS. He has served as (senior) program committee members at these conferences and received the WSDM Outstanding Program Committee Member award.