Minji Yoon

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RESEARCH INTEREST

Multimodal Learning, Graph Deep Learning

EDUCATION

Carnegie Mellon University Sep. 2018 – Present
- Ph.D. in Computer Science
- Advisor: Prof. Christos Faloutsos and Prof. Ruslan Salakhutdinov

Movement Research Lab., Seoul National University Sep. 2012 – Aug. 2014
- M.S. in Computer Science and Engineering
- Advisor: Prof. Jehee Lee

Seoul National University Mar. 2008 – Feb. 2012
- B.S. in Electrical and Computer Engineering

Hansung Science High School Mar. 2006 – Feb. 2008
- 1 year early graduation

SELECTED PUBLICATIONS

[1] **Minji Yoon**, Jing Yu Koh, Bryan Hooi, Russ Salakhutdinov, *Multimodal Graph Learning for Generative Tasks*, ArXiv preprint:2310.07478

[2] **Minji Yoon**, Yue Wu, John Palowitch, Bryan Perozzi, Russ Salakhutdinov, *Graph Generative Model for Benchmarking Graph Neural Networks*, International Conference on Machine Learning 2023 (**ICML'23**)

Selected as an outstanding paper at the Workshop on Graph Learning Benchmarks (KDD-GLB) 2023

[3] Youngmin Kim*, Rohan Kumar*, Sunitha Ravi*, Haitian Sun, Christos Faloutsos, Ruslan Salakhutdinov, **Minji Yoon**, *Automatic Question-Answer Generation for Long-Tail Knowledge*, Second Workshop on Knowledge Augmented Methods for Natural Language Processing 2023 (**KDD-KnowledgeNLP'23**)

[4] Steven Jecmen, **Minji Yoon**, Vincent Conitzer, Nihar B. Shah, Fei Fang, *A Dataset on Malicious Paper Bidding in Peer Review*, The Web Conference 2023 (**WWW'23**)

[5] **Minji Yoon**, John Palowitch, Dustin Zelle, Ziniu Hu, Russ Salakhutdinov, Bryan Perozzi, *Zero-shot Transfer Learning on Heterogeneous Graphs via Knowledge Transfer Networks*, Neural Information Processing Systems 2022 (**NeurIPS'22**)

[6] **Minji Yoon,** Theophile Gervet, Bryan Hooi, and Christos Faloutsos, *Autonomous Graph Mining Algorithm Search with Best Performance Trade-off*, Knowledge and Information Systems (SCIE Journal, **KAIS'22**)

[7] **Minji Yoon**, *Graph Fraud Detection Based on Accessibility Score Distributions*, European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases 2021 (**ECML-PKDD'21**)

[8] **Minji Yoon**, Theophile Gervet, Baoxu Shi, Sufeng Niu, Qi He, Jaewon Yang, *Performance-Adaptive Sampling Strategy Towards Fast and Accurate Graph Neural Networks*, SIGKDD Conference on Knowledge Discovery and Data Mining 2021 (**KDD'21**)

[9] **Minji Yoon**, Theophile Gervet, Bryan Hooi, and Christos Faloutsos, *Autonomous Graph Mining Algorithm Search with Best Speed/Accuracy Trade-off*, IEEE International Conference on Data Mining 2020 (**ICDM'20**)

 *Selected as one of the best papers of ICDM'20 for a fast track journal invitation at KAIS*

[10] Yiwei Wang, Shenghua Liu, **Minji Yoon**, Hemank Lamba, Wei Wang, Christos Faloutsos, and Bryan Hooi, *Provably Robust Node Classification via Low-Pass Message Passing*, IEEE International Conference on Data Mining 2020 (**ICDM'20**)

[11] Siddharth Bhatia, Bryan Hooi, **Minji Yoon**, Kijung Shin, and Christos Faloutsos, *MIDAS: Microcluster-Based Detector of Anomalies in Edge Streams*, AAAI Conference on Artificial Intelligence 2020 (**AAAI'20**)

[12] **Minji Yoon,** Bryan Hooi, Kijung Shin, and Christos Faloutsos, *Fast and Accurate Anomaly Detection in Dynamic Graphs with a Two-Pronged Approach*, SIGKDD Conference on Knowledge Discovery and Data Mining 2019 (**KDD'19**)

[13] **Minji Yoon,** Woojung Jin, and U Kang, *Fast and Accurate Random Walk with Restart on Dynamic Graphs with Guarantees*, The Web Conference 2018 (**WWW'18**)

[14] **Minji Yoon**, Jinhong Jung, and U Kang, *TPA: Fast, Scalable and Accurate Method for Approximate Random Walk with Restart on Billion Scale Graphs*, IEEE International Conference on Data Engineering 2018 (**ICDE'18**)

WORK EXPERIENCE

Artificial Intelligence Research and Education (AIRE) team, Amazon Web Services May.2023 – Aug.2023
- Applied Scientist Intern
- Heterogeneous Graph Learning powered by pretrained LLMs

Graph Mining team, Google Research May.2021 – Aug.2021
- Research Intern
- Developing Zero-shot Transfer Learning on Heterogeneous Graphs

Standardization team, LinkedIn Corporation May.2020 – Aug.2020
- Artificial Intelligence – Machine Learning Engineer Intern
- Developing Performance-Adaptive Sampling Strategy for Graph Neural Networks

CTPS Machine Learning Acceleration team, Amazon.com May.2019 – Aug.2019
- Applied Scientist Intern
- Developing Fraud Detection Algorithms on Dynamic Graphs

Data Mining Lab., Seoul National University Apr. 2017 – June 2018
- Research Intern
- Working on Graph Mining under the Supervision of Prof. U Kang

SAP Labs Korea Sep. 2014 – Mar. 2017
- Software Developer
- SAP HANA Database Kernel Development

TEACHING EXPERIENCE

Guest Lecture: Introduction to Graph Neural Networks 2022
- Delivered one lecture to CMU 10707: Introduction to Deep Learning [Slide] [Video]
- Delivered one lecture to CMU 10417/10617: Intermediate Deep Learning

CMU 10707: Introduction to Deep Learning Spring. 2022

- Teaching Assistant (lectured by Ruslan Salakhutdinov)

CMU 15780: Graduate Artificial Intelligence Spring. 2021

- Teaching Assistant (lectured by Stephanie Rosenthal and Nihar B. Shah)

AWARDS & HONORS

2022 Amazon Graduate Research Fellowship Sep. 2022 - Aug. 2023

- Awarding the amount of $70,000 to support scientific research of graduate students per year

2021 Amazon Graduate Research Fellowship Sep. 2021 - Aug. 2022

- Awarding the amount of $70,000 to support scientific research of graduate students per year

AWS Cloud Credit for Research Sep. 2021 - Aug. 2022

- Awarding $19,000 AWS Cloud Credit for Research
- My project "Democratization of Graph Deep Learning" was part of the proposal

Nominated for Google and IBM PhD Fellowships 2021

- 1 of 4 students from CMU

2020 Amazon Graduate Research Fellowship Sep. 2020 - Aug. 2021

- Awarding the amount of $70,000 to support scientific research of graduate students per year

Kwanjeong Educational Foundation Scholarship Sep. 2018 - Aug. 2022

- 4 years for Doctor’s Degree

National Science & Technology Scholarship, KOSAF Mar. 2008 - Feb. 2012

- Full tuition exemptions for 8 semesters