

Woohyun Lee

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EDUCATION

- **University of Michigan**

Ph.D. in Computer Science and Engineering

Aug. 2026 – Present

Ann Arbor, MI, USA

- Advisor: Prof. Danai Koutra

- **Sungkyunkwan University**

M.S. in Computer Science and Engineering

Sep. 2024 – Aug. 2026

Suwon, Republic of Korea

- Advisor: Prof. Hogun Park

- GPA: 4.5/4.5

- **Sungkyunkwan University**

B.S. in Computer Science and Engineering

Mar. 2019 – Aug. 2024

Suwon, Republic of Korea

- Magna Cum Laude (GPA: 4.03/4.5)

RESEARCH EXPERIENCE

- **LearnData Lab, Sungkyunkwan University**

Graduate Researcher

Sep. 2024 – Aug. 2026

Suwon, Republic of Korea

- Developed GPR-GAE, a multi-filter graph purification framework based on Generalized PageRank for robust graph neural networks under adversarial edge perturbations.
- Developed JUDO, a domain-oriented multimodal reasoning framework combining juxtaposed segmentation, domain knowledge injection, and GRPO-based reinforcement learning.
- Developed CondPSE, a learned positional and structural encoder using polynomial graph filtering and FiLM-based conditional modulation; studied the relationship between structural discrimination and downstream transfer.

PUBLICATIONS

- Woohyun Lee and Hogun Park. **CondPSE: A Polynomial-Filtered Structural Encoder with Conditional Modulation for Graphs**. In *KDD 2026 Workshop on Frontiers in Graph Machine Learning for the Large Model Era (GMLLM'26)*.
- Hyunju Kang*, Woohyun Lee*, Jaewon Kim, and Hogun Park. **JUDO: A Juxtaposed Domain-oriented Multimodal Reasoner for Industrial Anomaly QA**. In *The Fourteenth International Conference on Learning Representations (ICLR)*, 2026. (* Equal contribution)
- Woohyun Lee and Hogun Park. **Self-supervised Adversarial Purification for Graph Neural Networks**. In *Proceedings of the 42nd International Conference on Machine Learning (ICML)*, 2025.

PROFESSIONAL ACTIVITIES

- Reviewer, *NeurIPS* 2026.
- Reviewer, *ICLR* 2026.

TEACHING EXPERIENCE

- **Sungkyunkwan University**

Graduate Teaching Assistant

2024 – 2026

Suwon, Republic of Korea

- **Fundamentals of Machine Learning (SWE3050)** — Spring 2026
- **Introduction to Deep Neural Networks (SWE3052)** — Fall 2025
- **Artificial Intelligence Project (SWE3032)** — Spring 2025
- **Programming Languages (SWE3006)** — Fall 2024