Namkyeong Lee

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RESEARCH INTEREST	**Graph Machine Learning** Anything connected to or can be represented as graphs. ■ Graph Representation Learning (e.g., Self-supervised, Semi-supervised Learning on graphs) ■ Graph Neural Networks for Chemistry and Bioinformatics ■ Graph Neural Networks for Recommendation System

EDUCATION

KAIST (Korea Advanced Institute of Science and Technology)

■ Ph.D. in Industrial and Systems Engineering　　　　　　　　　　Mar 2023 – Present
- Research Interest: Graph Representation Learning, AI4Science
- Advisor: Prof. Chanyoung Park

KAIST (Korea Advanced Institute of Science and Technology)

■ M.S. in Industrial and Systems Engineering　　　　　　　　　　Mar 2021 – Feb 2023
- GPA: 3.85/4.3
- Research Interest: Graph Representation Learning, Graph Mining
- Advisor: Prof. Chanyoung Park

Korea University

■ B.S. in Industrial Management Engineering　　　　　　　　　　Mar 2015 – Feb 2021
- GPA: 3.9/4.5
- Dean's List (Spring 2021)

WORK EXPERIENCE

NAVER　　　　　　　　　　　　　　　　　　　　　　　　　Dec 2022 – Feb 2023
Seongnam, Korea

■ Research Intern
- Project: Learning Continual User Representation for Recommendation

AISoftKorea　　　　　　　　　　　　　　　　　　　　　　　Jun 2020 – Mar 2021
Seoul, Korea

■ Co-founder of AI-based legal counseling startup company.
- Grand prize at Seoul Innovation challenge 2020.

PUBLICATIONS

CONFERENCES

[C5] Conditional Graph Information Bottleneck for Molecular Relational Learning
Namkyeong Lee, Dongmin Hyun, Gyoung S. Na, Sungwon Kim, Junseok Lee, Chanyoung Park
International Conference on Machine Learning (**ICML 2023**)

[C4] Heterogeneous Graph Learning for Multi-modal Medical Data Analysis
Sein Kim, **Namkyeong Lee**, Junseok Lee, Dongmin Hyun, Chanyoung Park
AAAI Conference on Artificial Intelligence (**AAAI 2023 Oral Presentation**)

[C3] Relational Self-Supervised Learning on Graphs
Namkyeong Lee, Dongmin Hyun, Junseok Lee, Chanyoung Park
ACM International Conference on Information and Knowledge Management (**CIKM 2022**)

[C2] GraFN: Semi-Supervised Node Classification on Graph with Few Labels via Non-Parametric Distribution Assignment
Junseok Lee, Yunhak Oh, Yeonjun In, **Namkyeong Lee**, Dongmin Hyun, Chanyoung Park
ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2022 Short Paper**)

[C1] Augmentation-Free Self-Supervised Learning on Graphs
Namkyeong Lee, Junseok Lee, Chanyoung Park
AAAI Conference on Artificial Intelligence (**AAAI 2022**)

JOURNALS

	[J1]	Self-Supervised Graph Representation Learning via Positive Mining	
		Namkyeong Lee, Junseok Lee, Chanyoung Park	
		Information Sciences (2022)	

WORKSHOPS

[W1] Predicting Density of States via Multi-modal Transformer
Namkyeong Lee, Heewoong Noh, Sungwon Kim, Dongmin Hyun, Chanyoung Park
ICLR Workshop on Machine Learning for Materials (**ML4Materials 2023**)

PROJECTS	**Predicting Density of States based on the Structure of Materials**	May 2021 – Mar 2022
	▪ Collaboration with Korea Research Institute of Chemical Technology (KRICT)	
	Predicting Molecular Properties after Chemical Interaction	Mar 2022 – Dec 2022
	▪ Collaboration with Korea Research Institute of Chemical Technology (KRICT)	
	Learning Continual Universal User Representation for Recommendation	Jul 2022 – Present
	▪ Collaboration with NAVER Shopping	

AWARDS & SCHOLARSHIPS	**CIKM Travel Award**	Sep 2022
	▪ SIGIR student travel grants for CIKM 2022.	
	Grand Prize at Seoul Innovation Challenge 2020, Seoul Business Agency	Jan 2021
	▪ Barlaw: AI-based legal counseling start-up.	
	• 1st place among 444 teams.	
	Dean's List, Korea University	Spring 2019
	▪ Academic Excellence Award for attaining a semester GPA of 4.5/4.5.	
	Special Scholarship for the Student Affairs Office, Korea University	Fall 2019, Spring 2020
	Veritas Scholarship, Korea University	Spring 2020
	▪ Research on optimize drone routing with trucks for on-demand services	
	• Advisor: Prof. Taesu Cheong	
	Certificate, Korea National Police Agency	Fall 2018
	▪ An exemplary auxiliary police.	

TEACHING EXPERIENCE	**Teaching Assistant**	
	▪ IE343: Statistical Machine Learning	Spring 2021, 2022, 2023
	▪ CoE202: Basics of Artificial Intelligence	Fall 2021

PROFESSIONAL SERVICES	**Conference Reviews**
	▪ Conference on Neural Information Processing Systems (NeurIPS), 2023
	▪ AAAI Conference on Artificial Intelligence (AAAI), 2023
	Journal Reviews
	▪ ACM Transactions on Knowledge Discovery from Data (TKDD)
	▪ IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
	▪ World Wide Web

TALKS AND SEMINARS	**Augmentation-Free Self-Supervised Learning on Graphs**
	▪ Top Conference Session of Korea Computer Congress (KCC) 2022
	Relational Self-Supervised Learning on Graphs
	▪ Top Conference Session of Korea Software Congress (KSC) 2022

REFERENCES	**Prof. Chanyoung Park**
	Professor of Industrial and Systems Engineering
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