

SUNGWON KIM

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EDUCATION

Feb 2024 – Present	Korea Advanced Institute of Science and Technology (KAIST) <i>Ph.D. in Graduate School of Data Science, at <u>Data Science - Artificial Intelligence Lab (DSAIL)</u></i> <i>Advisor: <u>Prof. Chanyoung Park</u></i>	DAEJEON, KOREA
Feb 2022 – Feb 2024	Korea Advanced Institute of Science and Technology (KAIST) <i>M.S. in Graduate School of Data Science, at <u>Data Science - Artificial Intelligence Lab (DSAIL)</u></i> <i>Advisor: <u>Prof. Chanyoung Park</u></i> <i>GPA: 3.94 out of 4.3</i>	DAEJEON, KOREA
Mar 2014 – Feb 2022	Korea University <i>B.S. in Architecture & Civil Engineering</i> <i>GPA: 3.90 out of 4.5</i>	SEOUL, KOREA

RESEARCH INTEREST

Data Mining for Graph Neural Networks
Data-Efficient Deep Learning
Federated Learning

WORK EXPERIENCE

Jul 2019 – Feb 2022	AI SOFTWARE OF KOREA (한국에이아이소프트) <i>Co-CEO, Co-Founder</i>	SEOUL, KOREA
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PUBLICATIONS

Conferences	[C7]	Self-Explainable Temporal Graph Networks based on Graph Information Bottleneck Sangwoo Seo, Sungwon Kim , Jihyeong Jung, Yoonho Lee, Chanyoung Park KDD 2024 - ACM SIGKDD Conference on Knowledge Discovery and Data Mining
	[C6]	Unsupervised Episode Generation for Graph Meta-learning Jihyeong Jung, Sangwoo Seo, Sungwon Kim , Chanyoung Park ICML 2024 – International Conference on Machine Learning
	[C5]	DSLRL: Diversity Enhancement and Structure Learning for Rehearsal-based Graph Continual Learning Seungyeon Choi*, Wonjoong Kim*, Sungwon Kim , Yeonjun In, Sejin Kim, Chanyoung Park WWW 2024 (Oral) – The Web Conference
	[C4]	Interpretable Prototype-based Graph Information Bottleneck Sangwoo Seo, Sungwon Kim , Chanyoung Park NeurIPS 2023 - In Conference on Neural Information Processing Systems (NeurIPS) (Gold Prize at the 2023 Samsung Humantech Paper Award)
	[C3]	Density of States Prediction of Crystalline Materials via Prompt-guided Multi-Modal Transformer Namkyeong Lee*, Heewoong Noh*, Sungwon Kim , Dongmin Hyun, Gyoung S. Na, Chanyoung Park NeurIPS 2023 - In Conference on Neural Information Processing Systems (NeurIPS)
	[C2]	Task-Equivariant Graph Few-shot Learning Sungwon Kim , Junseok Lee, Namkyeong Lee, Wonjoong Kim, Seungyeon Choi, Chanyoung Park KDD 2023 - ACM SIGKDD Conference on Knowledge Discovery and Data Mining
	[C1]	Conditional Graph Information Bottleneck for Molecular Relational Learning Namkyeong Lee, Dongmin Hyun, Gyoung S Na, Sungwon Kim , Junseok Lee, Chanyoung Park ICML 2023 - International Conference on Machine Learning
	[J 1]	Deep Single-cell RNA-seq Data Clustering with Graph Prototypical Contrastive Learning Junseok Lee, Sungwon Kim , Dongmin Hyun, Namkyeong Lee, Yejin Kim, Chanyoung Park Bioinformatics 2023 (SCI)
	[W3]	Subgraph Federated Learning for Local Generalization Sungwon Kim , Yoonho Lee, Yunhak Oh, Namkyeong Lee, Sukwon Yun, Junseok Lee, Sejin Kim, Carl Yang, Chanyoung Park KDD 2024 Workshop on Federated Learning for Data Mining and Graph Analytics (FedKDD) (Oral)
Journals	[W2]	Deep Single-cell RNA-seq Data Clustering with Graph Prototypical Contrastive Learning Junseok Lee, Sungwon Kim , Dongmin Hyun, Namkyeong Lee, Yejin Kim, Chanyoung Park ICML 2023 Workshop on Computational Biology (WCB 2023)
Workshops	[W1]	Predicting Density of States via Multi-modal Transformer Namkyeong Lee, Heewoong Noh, Sungwon Kim , Dongmin Hyun, Gyoung S Na, Chanyoung Park ICLR 2023 Workshop on Machine Learning for Materials (ML4Materials) - International Conference on Learning Representations

PROJECTS

Jan 2021 – Feb 2022	Translating Korean Legal Case's Sentences into Common Terms 1 st award project at <i>Seoul R&D research center (2021)</i>
Jun 2020 – Dec 2020	Sentence Similarity Model for Korean Legal Sentences 1 st award project at <i>Seoul R&D research center (2020)</i>
Oct 2017 – Dec 2017	Analysis of Color Cognitive of Older Persons or Children with Disabilities by Big Data <i>Development of Color Cognitive Test Kit and Multivariate Regression Analysis</i>

HONORS AND AWARDS

Dec 2020	Seoul Renovation Challenge Awarded for the best team out of 444 participants <i>Systems and methods for providing quantified AI answering services for legal questions</i>	Seoul Business Agency
Jul 2015	National University Rowing Conference Top award, Crew of Korea University Rowing Team	Korean Rowing Association

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Oct 2019	Big data and AI-based Color Recognition Measurement Platform and Method Patent Number : 10-2351169-00-00 <i>Registered Patent</i>
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TEACHING EXPERIENCE

Sep. 2023	AI Specialist Course , Samsung Electronics Teaching Assistant
Spring 2023	DS503: Machine Learning for Data Science , KAIST Teaching Assistant
Fall 2022	AI Business Transformation Program , KAIST Researcher
Spring 2022	IE343: Statistical Machine Learning , KAIST Teaching Assistant

TALKS AND SEMINARS

Winter 2023	Task-Equivariant Graph Few-shot Learning Top Conference Session of Korea Software Congress (KSC)
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ACTIVITIES

Mar 2015 – Present	Korea University Rowing Team
Apr 2019 – Feb 2020	Working Holidays in Australia Swimming Instructor, United Swimming Club

REFERENCES

Prof. Chanvoungh Park

Assistant professor, KAIST
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