# **Chanyoung Park**

CONTACT	Assistant Professor	Phone: +82-42-350-3137
INFORMATION	Data Science & Artificial Intelligence Lab (DSAIL)	Email: cy.park@kaist.ac.kr
	Dept. of Industrial & Systems Engineering, KAIST	Homepage: https://dsail.kaist.ac.kr
	The Kim Jaechul Graduate School of AI, KAIST	
	Graduate School of Data Science, KAIST	
	Room #4104, E2-2 (Industrial & Management Building)	Google Scholar
CURRENT RESEARCH	<ul> <li>Data-Centric AI, Model-Centric AI, Multimodal Data Mining, AI for Science</li> <li>Mining meaningful knowledge from multimodal data to develop artificial intelligence solutions for various real-world applications across different disciplines.</li> <li>Application domains: Recommendation system, AI for Science (Materials science, Chemistry, Bioinformatics), Social network analysis, Medical image analysis, Fraud/Anomaly detection, Knowlede</li> </ul>	
	graph, Sentiment analysis, Purchase/Click prediction, Time-series	and spatio-temporal analysis, etc.
POSITIONS	KAIST, Daejeon, South Korea	Nov 2020 – Present
	<ul> <li>Assistant Professor, Dept. of Industrial &amp; Systems Engineering</li> <li>Assistant Professor, The Kim Jaechul Graduate School of AI</li> <li>Assistant Professor, Graduate School of Data Science</li> </ul>	
	University of Illinois at Urbana-Champaign, Urbana, IL, USA	Jan 2019 – Oct 2020
	<ul> <li>Postdoctoral Reserach Fellow in Computer Science Department</li> <li>Host: Prof. Jiawei Han</li> <li>Topics: Multimodal data mining, Heterogeneous network representation le</li> </ul>	earning
	Microsoft Research, Beijing, China	Sep 2017 – Dec 2017
	<ul> <li>Research Intern</li> <li>Mentor: Dr. Xing Xie</li> <li>Project: Collaborative Translational Metric Learning</li> </ul>	•
	NAVER, Seongnam, South Korea	Mar 2017 – Aug 2017
	<ul> <li>Research Intern</li> <li>Mentors: Dr. Jung-Tae Lee, and Dr. Min-Chul Yang</li> <li>Project: Click-aware Purchase Prediction with Push at the Top</li> </ul>	Ü
<b>EDUCATION</b>	Pohang University of Science and Technology, Pohang, South Kore	Feb 2019
	<ul> <li>Ph.D. in Computer Science and Engineering</li> <li>Thesis: Recommendation Framework via Matrix Factorization and Transl.</li> </ul>	ation
	• Topics: Multimodal data mining, User behavior modeling, Recommender	system
	Sogang University, Seoul, South Korea	Feb 2014
	<ul> <li>B.S. in Computer Science and Engineering</li> </ul>	
AWARDS & SCHOLARSHIPS	Song-Am Distinguished Research Award  College of Engineering, KAIST	2024
	Best Academic Award  Dept. of Industrial and Systems Engineering, KAIST	2024
	Best Paper Award  ■ KDD 2024 Workshop on Federated Learning for Data Mining and Graph Analytics (FedKDD), Barcelona, Spain	
	Best Paper Award  ■ KDD 2024 Workshop on Human-Interpretable AI, Barcelona, Spain	2024
	Gold Prize, 30th Samsung Humantech Paper Award	2024
	Technology Innovation Awards	2023
	College of Engineering, KAIST  To Day 100  To Day	22-2
	Top Reviewer of NeurIPS	2023
	Best Paper Award  I ICMI 2023 Workshop on Computational Biology, Hawaii, USA	2023

■ ICML 2023 Workshop on Computational Biology, Hawaii, USA

KAIST Excellence in Teaching Award of Year 2022	
Best Teaching Award	2023
<ul> <li>Dept. of Industrial and Systems Engineering, KAIST</li> </ul>	
ICDM Travel Award	2018
■ International Conference on Data Mining, Singapore	
Award of excellence	2017
■ Microsoft Research Asia Internship Program, Beijing, China	
<ul> <li>Awarded to the best intern</li> </ul>	
Naver Ph.D Fellowship	2016
<ul> <li>Awarded to outstanding Ph.D students majoring in computer science in Korea</li> </ul>	
RecSys Challenge 2015	2015
■ Ranked 10 out of 850 teams from 49 countries (Top 1.1%)	
■ Task: Click/Purchase Prediction	
Dean's List	
■ Sogang University	

#### **PUBLICATIONS** CONFERENCES

- [C59] Subgraph Federated Learning for Local Generalization Sungwon Kim, Yoonho Lee, Yunhak Oh, Namkyeong Lee, Sukwon Yun, Junseok Lee, Sein Kim, Carl Yang, Chanyoung Park The Thirteenth International Conference on Learning Representations (ICLR 2025 (Oral))
- [C58] Weakly Supervised Video Scene Graph Generation via Natural Language Supervision Kibum Kim, Kanghoon Yoon, Yeonjun In, Jaehyeong Jeon, Jinyoung Moon, Donghyun Kim, Chanyoung Park
- The Thirteenth International Conference on Learning Representations (ICLR 2025)

  [C57] Self-Supervised Diffusion Models for Electron-Aware Molecular Representation Learning
  - The Thirteenth International Conference on Learning Representations (ICLR 2025)
- [C56] Diversify-verify-adapt: Efficient and Robust Retrieval-Augmented Ambiguous Question Answering Yeonjun In, Sungchul Kim, Ryan A. Rossi, Mehrab Tanjim, Tong Yu, Ritwik Sinha, Chanyoung Park
  - Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL 2025)
- [C55] SIMPLOT: Enhancing Chart Question Answering by Distilling Essentials Wonjoong Kim\*, Sangwu Park\*, Yeonjun In, Seokwon Han, Chanyoung Park Annual Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (NAACL 2025 Findings)
- [C54] RA-SGG: Retrieval-Augmented Scene Graph Generation Framework via Multi-Prototype Learning Kanghoon Yoon, Kibum Kim, Jaehyeong Jeon, Yeonjun In, Donghyun Kim, **Chanyoung Park** Thirty-Nineth AAAI Conference on Artificial Intelligence (AAAI 2025)
- [C53] Electron-Informed Coarse-Graining Molecular Representation Learning for Real-World Molecular Physics
  - Gyoung S. Na, Chanyoung Park

Gyoung S. Na, Chanyoung Park

- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2025)
- [C52] On Measuring Unnoticeability of Graph Adversarial Attacks: Observations, New Measure, and Applications Hyeonsoo Jo\*, Hyunjin Hwang\*, Fanchen Bu, Soo Yong Lee, Chanyoung Park, Kijung Shin
  - ACM SIGKDD Conference on Knowledge Discovery and Data Mining **(KDD 2025)**
- [C51] Revisiting Fake News Detection: Towards Temporality-aware Evaluation by Leveraging Engagement Earliness Junghoon Kim\*, Junmo Lee\*, Yeonjun In, Kanghoon Yoon, Chanyoung Park The 18th ACM International Conference on Web Search and Data Mining (WSDM 2025 (Oral))
- [C50] Retrieval-Retro: Retrieval-based Inorganic Retrosynthesis with Expert Knowledge Heewoong Noh, Namkyeong Lee, Gyoung S. Na, Chanyoung Park Thirty-eightth Conference on Neural Information Processing Systems (NeurIPS 2024)

- [C49] Debiased Graph Poisoning Attack via Contrastive Surrogate Objective Kanghoon Yoon, Yeonjun In, Namkyeong Lee, Kibum Kim, Chanyoung Park ACM International Conference on Information and Knowledge Management (CIKM 2024)
- [C48] Vision Language Model is NOT All You Need: Augmentation Strategies for Molecule Language Models Namkyeong Lee, Siddhartha Laghuvarapu, Chanyoung Park, Jimeng Sun ACM International Conference on Information and Knowledge Management (CIKM 2024)
- [C47] Semantic Diversity-aware Prototype-based Learning for Unbiased Scene Graph Generation Jaehyeong Jeon, Kibum Kim, Kanghoon Yoon, Chanyoung Park European Conference on Computer Vision (ECCV 2024)
- [C46] Multiplexed Immunofluorescence Image Analysis through an Efficient Multiplex Network Sukwon Yun, Jie Peng, Alexandro Trevino, Chanyoung Park, Tianlong Chen European Conference on Computer Vision (ECCV 2024)
- [C45] Large Language Models meet Collaborative Filtering: An Efficient All-round LLM-based Recommender System Sein Kim\*, Hongseok Kang\*, Seungyoon Choi, Donghyun Kim, Minchul Yang, Chanyoung Park ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2024)
- [C44] Self-Explainable Temporal Graph Networks based on Graph Information Bottleneck Sangwoo Seo, Sungwon Kim, Jihyeong Jung, Yoonho Lee, Chanyoung Park ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2024)
- [C43] LLM4SGG: Large Language Models for Weakly Supervised Scene Graph Generation Kibum Kim, Kanghoon Yoon, Jaehyeong Jeon, Yeonjun In, Jinyoung Moon, Donghyun Kim, Chanyoung Park IEEE/CVF Computer Vision and Pattern Recognition Conference (CVPR 2024)
- [C42] Self-guided Robust Graph Structure Refinement Yeonjun In, Kanghoon Yoon, Kibum Kim, Kijung Shin, Chanyoung Park The Web Conference 2024 (WWW 2024 (Oral))
- [C41] DSLR: Diversity Enhancement and Structure Learning for Rehearsal-based Graph Continual Learning Seungyoon Choi\*, Wonjoong Kim\*, Sungwon Kim, Yeonjun In, Sein Kim, Chanyoung Park The Web Conference 2024 (WWW 2024 (Oral))
- [C40] Adaptive Self-training Framework for Fine-grained Scene Graph Generation Kibum Kim\*, Kanghoon Yoon\*, Yeonjun In, Jinyoung Moon, Donghyun Kim, **Chanyoung Park** Twelfth International Conference on Learning Representations (**ICLR 2024**)
- [C39] Sterling: Synergistic Representation Learning on Bipartite Graphs Baoyu Jing, Yuchen Yan, Kaize Ding, Chanyoung Park, Yada Zhu, Huan Liu, Hanghang Tong Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI 2024 (Oral))
- [C38] Interpretable Prototype-based Graph Information Bottleneck Sangwoo Seo, Sungwon Kim, Chanyoung Park Thirty-seventh Conference on Neural Information Processing Systems (NeurIPS 2023) (Gold Prize, 30th Samsung Humantech Paper Award)
- [C37] 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** Thirty-seventh Conference on Neural Information Processing Systems (**NeurIPS 2023**)
- [C36] MUSE: Music Recommender System with Shuffle Play Recommendation Enhancement Yunhak Oh\*, Sukwon Yun\*, Dongmin Hyun, Sein Kim, Chanyoung Park ACM International Conference on Information and Knowledge Management (CIKM 2023)
- [C35] Class Label-aware Graph Anomaly Detection Junghoon Kim, Yeonjun In, Kanghoon Yoon, Junmo Lee, Chanyoung Park ACM International Conference on Information and Knowledge Management (CIKM 2023) (Short Paper)

- [C34] Structural Mixup for Graph Neural Networks Junghurn Kim\*, Sukwon Yun\*, Chanyoung Park ACM International Conference on Information and Knowledge Management (CIKM 2023) (Short Paper)
- [C33] Similarity Preserving Adversarial Graph Contrastive Learning Yeonjun In\*, Kanghoon Yoon\*, Chanyoung Park ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2023)
- [C32] Shift-Robust Molecular Relational Learning with Causal Substructure Namkyeong Lee, Kanghoon Yoon, Gyoung S. Na, Sein Kim, Chanyoung Park ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2023)
- [C31] Task-Equivariant Graph Few-shot Learning Sungwon Kim, Junseok Lee, Namkyeong Lee, Wonjoong Kim, Seungyoon Choi, Chanyoung Park ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2023)
- [C30] Task Relation-aware Continual User Representation Learning
   Sein Kim, Namkyeong Lee, Donghyun Kim, Min-Chul Yang, Chanyoung Park
   ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2023)
- [C29] 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)
- [C28] MELT: Mutual Enhancement of Long-Tailed User and Item for Sequential Recommendation
   Kibum Kim, Dongmin Hyun, Sukwon Yun, Chanyoung Park
   ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2023)
- [C27] Unbiased Heterogeneous Scene Graph Generation with Relation-aware Message Passing Neural Network Kanghoon Yoon\*, Kibum Kim\*, Jinyoung Moon, Chanyoung Park Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI 2023)
- [C26] Heterogeneous Graph Learning for Multi-modal Medical Data Analysis Sein Kim, Namkyeong Lee, Junseok Lee, Dongmin Hyun, Chanyoung Park Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI 2023 (Oral))
- [C25] Generating Multiple-Length Summaries via Reinforcement Learning for Unsupervised Sentence Summarization Dongmin Hyun, Xiting Wang, Chanyoung Park, Xing Xie, Hwanjo Yu Conference on Empirical Methods in Natural Language Processing (EMNLP 2022 Findings)
- [C24] Set2Box: Similarity Preserving Representation Learning for Sets Geon Lee, Chanyoung Park, Kijung Shin The IEEE International Conference on Data Mining (ICDM 2022)
- [C23] LTE4G: Long-Tail Experts for Graph Neural Networks Sukwon Yun, Kibum Kim, Kanghoon Yoon, Chanyoung Park ACM International Conference on Information and Knowledge (CIKM 2022)
- [C22] Relational Self-Supervised Learning on Graphs Namkyeong Lee, Dongmin Hyun, Junseok Lee, Chanyoung Park ACM International Conference on Information and Knowledge (CIKM 2022)
- [C21] Beyond Learning from Next Item: Sequential Recommendation via Personalized Interest Sustainability Dongmin Hyun, Chanyoung Park, Junsu Cho, Hwanjo Yu
  - ACM International Conference on Information and Knowledge (**CIKM 2022**)
- [C20] Nonlinearity Encoding for Extrapolation of Neural Networks
   Gyoung S. Na, Chanyoung Park
   ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2022)

- [C19] 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)
- [C18] AHP: Learning to Negative Sample for Hyperedge Prediction Hyunjin Hwang, Seungwoo Lee, Chanyoung Park, Kijung Shin ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2022) (Short Paper)
- [C17] Augmentation-Free Self-Supervised Learning on Graphs Namkyeong Lee, Junseok Lee, Chanyoung Park Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI 2022)
- [C16] Learnable Structural Semantic Readout for Graph Classification Dongha Lee, Su Kim, Seonghyeon Lee, Chanyoung Park, Hwanjo Yu IEEE International Conference on Data Mining (ICDM 2021) (Short Paper)
- [C15] Bootstrapping User and Item Representations for One-Class Collaborative Filtering Dongha Lee, Seongku Kang, Hyunjun Ju, Chanyoung Park, Hwanjo Yu ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2021)
- [C14] HDMI: High-order Deep Multiplex Infomax Baoyu Jing, Chanyoung Park, Hanghang Tong The Web Conference (WWW 2021)
- [C13] Interest Sustainability-Aware Recommender System Dongmin Hyun, Junsu Cho, Chanyoung Park, Hwanjo Yu IEEE International Conference on Data Mining (ICDM 2020)
- [C12] Unsupervised Differentiable Multi-aspect Network Embedding Chanyoung Park, Carl Yang, Qi Zhu, Donghyun Kim, Hwanjo Yu and Jiawei Han ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD 2020)
- [C11] Unsupervised Attributed Multiplex Network Embedding Chanyoung Park, Donghyun Kim, Jiawei Han, Hwanjo Yu Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020)
- [C10] Task-Guided Pair Embedding in Heterogeneous Network
  Chanyoung Park, Donghyun Kim, Qi Zhu, Jiawei Han, Hwanjo Yu
  ACM International Conference on Information and Knowledge (CIKM 2019)
- [C9] BHIN2vec: Balancing the Type of Relation in Heterogeneous Information Network Seonghyun Lee, Chanyoung Park, Hwanjo Yu ACM International Conference on Information and Knowledge (CIKM 2019)
- [C8] Action Space Learning for Heterogeneous User Behavior Prediction Dongha Lee, **Chanyoung Park**, Hyunjun Ju, Junyoung Hwang, Hwanjo Yu International Joint Conference on Artificial Intelligence (**IJCAI 2019**)
- [C7] Sequential and Diverse Recommendation with Long Tail Yejin Kim, Kwangseob Kim, Chanyoung Park, Hwanjo Yu International Joint Conference on Artificial Intelligence (IJCAI 2019)
- [C6] Collaborative Translational Metric Learning Chanyoung Park, Donghyun Kim, Xing Xie, Hwanjo Yu IEEE International Conference on Data Mining (ICDM 2018)
- [C5] Review Sentiment-Guided Scalable Deep Recommender System Dongmin Hyun, Chanyoung Park, Min-Chul Yang, Ilhyeon Song, Jung-Tae Lee, Hwanjo Yu ACM SIGIR conference on Research and Development in Information Retrieval (SIGIR 2018) (Short Paper)
- [C4] Do "Also-Viewed" Products Help User Rating Prediction? Chanyoung Park, Donghyun Kim, Jinoh Oh, Hwanjo Yu International World-Wide Web Conference (WWW 2017)

- [C3] Convolutional Matrix Factorization for Document Context-Aware Recommendation Donghyun Kim, Chanyoung Park, Jinoh Oh, Hwanjo Yu ACM international conference on Recommender System (RecSys 2016)
- [C2] TRecSo: Enhancing Top-k Recommendation With Social Information Chanyoung Park, Donghyun Kim, Jinoh Oh, Hwanjo Yu International World-Wide Web Conference (WWW 2016) (Poster)
- [C1] Predicting User Purchase in E-commerce by Comprehensive Feature Engineering and Decision Boundary Focused Under-Sampling

**Chanyoung Park**, Donghyun Kim, Jinoh Oh, Hwanjo Yu ACM international conference on Recommender System Challenge (**ACM RecSysChallenge 2015**, 10th place, top 1.1%)

#### **JOURNALS**

- [J13] Generating Fine-grained Scene Graph via Heterogeneous Graph Learning Kanghoon Yoon\*, Kibum Kim\*, Jinyoung Moon, Chanyoung Park IEEE Transactions on Neural Networks and Learning Systems (2024)
- [J12] Single-cell RNA Sequencing Data Imputation Using Bi-level Feature Propagation Junseok Lee\*, Sukwon Yun\*, Yeongmin Kim, Tianlong Chen, Manolis Kellis, Chanyoung Park Briefings in Bioinformatics (2024)
- [J11] 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)
- [J10] Self-Supervised Graph Representation Learning via Positive Mining Namkyeong Lee, Junseok Lee, Chanyoung Park Information Sciences (2022.9)
- [J9] Learning to Utilize Auxiliary Reviews for Recommendation Dongmin Hyun, Chanyoung Park, Junsu Cho, Hwanjo Yu Information Sciences (2021.2)
- [J8] Deep Multiplex Graph Infomax: Attentive Multiplex Network Embedding using Global Information Chanyoung Park, Jiawei Han, Hwanjo Yu Knowledge-Based Systems (2020.6)
- [J7] Improved prediction of miRNA-disease associations based on matrix completion with network regularization Jihwan Ha, Chihyun Park, Chanyoung Park, Sanghyun Park Cells (2020.4) (SCIE)
- [J6] Click-aware Purchase Prediction with Push at the Top Chanyoung Park, Donghyun Kim, Min-Chul Yang, Jung-Tae Lee, Hwanjo Yu Information Sciences (2020.6)
- [J5] Inferring miRNA-disease Interactions using Probabilistic Matrix Factorization Jihwan Ha, Chihyun Park, Chanyoung Park, Sanghyun Park Journal of Biomedical Informatics (2020.2)
- [J4] An Encoder-Decoder Switch Network for Purchase Prediction Chanyoung Park, Donghyun Kim, Hwanjo Yu Knowledge-Based Systems (2019.12)
- [J3] Target-aware Convolutional Neural Network for Target-level Sentiment Analysis Dongmin Hyun, Chanyoung Park, Min-Chul Yang, Ilhyeon Song, Jung-Tae Lee, Hwanjo Yu Information Sciences (2019.7)
- [J2] Deep Hybrid Recommender Systems via Exploiting Document Context and Statistics of Items Donghyun Kim, Chanyoung Park, Jinoh Oh, Hwanjo Yu Information Sciences (2017.11)
- [J1] Improving top-K recommendation with truster and trustee relationship in user trust network Chanyoung Park, Donghyun Kim, Jinoh Oh, Hwanjo Yu Information Sciences (2016.12)

## WORKSHOPS

- [W9] 3D Interaction Geometric Pre-training for Molecular Relational Learning Namkyeong Lee, Yunhak Oh, Heewoong Noh, Gyoung S. Na, Tianfan Fu, Chanyoung Park NeurIPS 2024 Workshop on AI for New Drug Modalities (AIDrugX)
- [W8] Subgraph Federated Learning for Local Generalization Sungwon Kim, Yoonho Lee, Yunhak Oh, Namkyeong Lee, Sukwon Yun, Junseok Lee, Sein Kim, Carl Yang, Chanyoung Park KDD 2024 Workshop on Human-Interpretable AI (Oral) (Best Paper Award)
- [W7] Interpretable Graph Model with Prototype-Based Graph Information Bottleneck Sangwoo Seo, Sungwon Kim, Chanyoung Park
   KDD 2024 Workshop on Human-Interpretable AI (Oral) (Best Paper Award)
- [W6] Stoichiometry Representation Learning with Polymorphic Crystal Structures Namkyeong Lee, Heewoong Noh, Gyoung S. Na, Tianfan Fu, Jimeng Sun, Chanyoung Park NeurIPS 2023 Workshop on AI for Scientific Discovery: From Theory to Practice (AI4Science)
- [W5] Electron-Derived Molecular Representation Learning for Real-World Molecular Physics
   Gyoung S. Na, Chanyoung Park
   NeurIPS 2023 Workshop on AI for Scientific Discovery: From Theory to Practice (AI4Science)
- [W4] 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
- [W3] Denoising single-cell RNA-seq data using Feature Propagation Sukwon Yun, Junseok Lee, Chanyoung Park ICML 2023 Workshop on Computational Biology (Oral) (Best Paper Award)
- [W2] 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)
- [W1] Shift-Robust Node Classification via Graph Adversarial Clustering Qi Zhu, Chao Zhang, Chanyoung Park, Carl Yang, Jiawei Han NeurIPS 2022 GLFrontiers Workshop

#### **PATENT**

[P1] Method for context-aware recommendation by considering contextual information of document and apparatus for the same Donghyun Kim, Chanyoung Park, Jinoh Oh, Hwanjo Yu

No. 10-18771610000, issued July 2018.

#### TEACHING Instructor

IE343: Statistical Machine Learning, KAIST
 DS535 (KSE801): Recommender System and Machine Learning on Graphs, KAIST

■ CoE202: Basics of Artificial Intelligence, KAIST

■ DS503: Machine Learning for Data Science (Deep Learning), KAIST

**Teaching Assistant** 

■ CSED352: Data Communications, POSTECH

■ CSED312: Operating System, POSTECH

2021F, 2022F, 2023F, 2024F 2021F

2021S, 2022S, 2023S, 2024S

2022S,2023S,2024S

2014F

2016F

#### PROFESSIONAL AREA CHAIR

# SERVICES

- The International Conference on Learning Representations (ICLR) [2025-present]
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) [2025-present]
- Conference on Neural Information Processing Systems (NeurIPS) [2024-present]
- ICML 2024 AI4Science Workshop [2024-present]
- NeurIPS Workshop (AI for Science: from Theory to Practice) [2023-present]

#### PROGRAM COMMITTEE/REVIEWER

- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) [2022-present]
- The Web Conference (WWW) [2020-present]
- AAAI Conference on Artificial Intelligence (AAAI), [2021-present]
- Conference on Neural Information Processing Systems (NeurIPS) [2022-present]
- International Conference on Machine Learning (ICML) [2023-present]

- The International Conference on Learning Representations (ICLR), [2022-present]
- ACM International Conference on Research and Development in Information Retrieval (SIGIR)
   [2023-present]
- ACM International Web Search and Data Mining Conference (WSDM) [2023-present]
- International Joint Conference on Artificial Intelligence (IJCAI) [2023-present]
- ACM International Conference on Information and Knowledge Management (CIKM) [2023-present]
- SIAM International Conference on Data Mining (SDM) [2023-present]
- Learning on Graphs Conference (LoG) [2022-present]
- International ACM SIGIR Conference on Information Retrieval in the Asia Pacific (SIGIR-AP)
   [2023-present]
- The Web Conference (WWW) Poster Track, 2020
- ACM International Conference on Information and Knowledge Management (CIKM) Short Paper Track,
   [2020-present]
- IEEE International Conference on Big Data (BigData) [2020-2023]
- ECML-PKDD Research Track [2023-present]
- ECML-PKDD Applied Data Science Track and Demo Track [2020-2021]
- International Conference on Database Systems for Advanced Applications (DASFAA), 2021
- International Conference on Big Data and Smart Computing (BigComp) 2023
- International Conference on Internet and Web Applications and Services (ICIW) [2017-2018]
- Graph Learning @ TheWebConf, 2022
- International Joint Conference on Artificial Intelligence (IJCAI) Special Track on AI for Good, 2022
- NeurIPS Workshop (New Frontiers of AI for Drug Discovery and Development) [2023-present]

#### JOURNAL REVIEWS

- Artificial Intelligence In Medicine, Elsevier
- IEEE Transactions on Image Processing (TIP)
- Briefings in Bioinformatics, Oxford University Press
- ACM Transactions on Knowledge Discovery from Data (TKDD)
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- ACM Transactions on Knowledge and Data Engineering (TKDE)
- ACM Transactions on Information Systems (TOIS)
- ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)
- ACM Transactions on Intelligent Systems and Technology (TIST)
- Journal of Computational Science, Elsevier
- Physica A: Statistical Mechanics and its Applications, Elsevier
- ISA Transactions, Elsevier
- Journal of King Saud University, Elsevier
- Reliability Engineering & System Safety, Elsevier
- Applied Soft Computing, Elsevier
- Data & Knowledge Engineering, Elsevier
- Pattern Recognition, Elsevier
- Information Sciences, Elsevier
- Knowledge-Based Systems, Elsevier
- Expert Systems with Applications, Elsevier
- ISA Transactions, Elsevier
- Computational and Structural Biotechnology Journal, Elsevier
- Heliyon, Elsevier
- Data Mining and Knowledge Discovery, Springer
- Frontiers of Computer Science, Springer
- Transactions on Asian and Low-Resource Language Information Processing, ACM
- Applied Intelligence (APIN), Springer
- An International Journal on Advances of Computer Science for Geographic Information Systems (GeoInformatica), Springer
- PLOS ONE, Public Library of Science
- IEEE Access
- Concurrency and Computation: Practice and Experience, John Wiley and Sons Ltd
- Applied Computational Intelligence and Soft Computing, Hindawi
- Mathematical Problems in Engineering, Hindawi

- Wireless Communications and Mobile Computing, Hindawi
- Mathematics, MDPI
- Electronics, MDPI
- Applied Sciences, MDPI
- Information, MDPI
- Entropy, MDPI

## **EVENT ORGANIZATIONS**

• Proceedings Chair, The ACM International Conference on Information and Knowledge Management (CIKM) [2023]

## JOURNAL EDITORSHIP

- Frontiers in Artificial Intelligence (Graph representation learning: Methods and Applications)
- Frontiers in Big Data (Reviews in Big Data Networks: 2022)