Chanyoung Park

CONTACT INFORMATION

Assistant Professor
Data Science & Artificial Intelligence Lab (DSAIL)
Dept. of Industrial & Systems Engineering, KAIST
The Kim Jaechul Graduate School of AI, KAIST
Graduate School of Data Science, KAIST
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Homepage: https://dsail.kaist.ac.kr
Google Scholar

CURRENT RESEARCH

Data-Centric AI, Model-Centric AI, Multimodal Data Mining, AI for Science

- Mining meaningful knowledge from multimodal data to develop artificial intelligence solutions for various real-world applications across different disciplines.
- **Application domains:** Recommendation system, AI for Science (Materials science, Chemistry, Bioinformatics), Social network analysis, Medical image analysis, Fraud/Anomaly detection, Knowlede graph, Sentiment analysis, Purchase/Click prediction, Time-series and spatio-temporal analysis, etc.

POSITIONS

KAIST, Daejeon, South Korea — Nov 2020 – Present

- Assistant Professor, Dept. of Industrial & Systems Engineering
- Assistant Professor, The Kim Jaechul Graduate School of AI
- Assistant Professor, Graduate School of Data Science

University of Illinois at Urbana-Champaign, Urbana, IL, USA — Jan 2019 – Oct 2020

- Postdoctoral Reserach Fellow in Computer Science Department
  - Host: Prof. Jiawei Han
  - Topics: Multimodal data mining, Heterogeneous network representation learning

Microsoft Research, Beijing, China — Sep 2017 – Dec 2017

- Research Intern
  - Mentor: Dr. Xing Xie
  - Project: Collaborative Translational Metric Learning

NAVER, Seongnam, South Korea — Mar 2017 – Aug 2017

- Research Intern
  - Mentors: Dr. Jung-Tae Lee, and Dr. Min-Chul Yang
  - Project: Click-aware Purchase Prediction with Push at the Top

EDUCATION

Pohang University of Science and Technology, Pohang, South Korea — Feb 2019

- Ph.D. in Computer Science and Engineering
  - Thesis: Recommendation Framework via Matrix Factorization and Translation
  -
  - Topics: Multimodal data mining, User behavior modeling, Recommender system

Sogang University, Seoul, South Korea — Feb 2014

- B.S. in Computer Science and Engineering

AWARDS & SCHOLARSHIPS

Song-Am Distinguished Research Award 2024
- College of Engineering, KAIST

Best Academic Award 2024
- Dept. of Industrial and Systems Engineering, KAIST

Best Paper Award 2024
- KDD 2024 Workshop on Federated Learning for Data Mining and Graph Analytics (FedKDD), Barcelona, Spain

Best Paper Award 2024
- KDD 2024 Workshop on Human-Interpretable AI, Barcelona, Spain

Gold Prize, 30th Samsung Humantech Paper Award 2024

Technology Innovation Awards 2023
- College of Engineering, KAIST

Top Reviewer of NeurIPS 2023

Best Paper Award 2023
- ICML 2023 Workshop on Computational Biology, Hawaii, USA

KAIST Excellence in Teaching Award of Year 2022 2023

Best Teaching Award 2023
- Dept. of Industrial and Systems Engineering, KAIST

ICDM Travel Award 2018
- International Conference on Data Mining, Singapore

Award of excellence 2017
- Microsoft Research Asia Internship Program, Beijing, China
- Awarded to the best intern

Naver Ph.D Fellowship 2016
- Awarded to outstanding Ph.D students majoring in computer science in Korea

RecSys Challenge 2015 2015
- Ranked 10 out of 850 teams from 49 countries (Top 1.1%)
- Task: Click/Purchase Prediction

Dean's List Fall 2013
- Sogang University

PUBLICATIONS

CONFERENCES

[C61] Disentangling and Generating Modalities for Recommendation in Missing Modality Scenarios
Jiwan Kim, Hongseok Kang, Sein Kim, Kibum Kim, **Chanyoung Park**
ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2025**)

[C60] Dynamic Time-aware Continual User Representation Learning
Seungyoon Choi, Sein Kim, Hongseok Kang, Wonjoong Kim, **Chanyoung Park**
ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2025**)

[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
Gyoung S. Na, **Chanyoung Park**
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**
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 — 2021S, 2022S, 2023S, 2024S
- DS535 (KSE801): Recommender System and Machine Learning on Graphs, KAIST — 2021F, 2022F, 2023F, 2024F
- CoE202: Basics of Artificial Intelligence, KAIST — 2021F
- DS503: Machine Learning for Data Science (Deep Learning), KAIST — 2022S,2023S,2024S

Teaching Assistant

- CSED352: Data Communications, POSTECH — 2014F
- CSED312: Operating System, POSTECH — 2016F

PROFESSIONAL SERVICES

AREA CHAIR

- 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)