Kibum Kim

PH.D STUDENT

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Research Interest

Deep Learning/Machine Learning

SCENE UNDERSTANDING, RECOMMENDATION, GRAPH NEURAL NETWORKS

- Learning the model with a focus on achieving a balanced representation, counteracting the long-tailed distribution commonly found in the real-world data.

Education

Korea Advanced Institute of Science and Technology (KAIST) *Daejoen, South Korea*

PH.D IN INDUSTRIAL & SYSTEMS ENGINEERING *Sep 2023 - Present*

- Research Interest: Scene Understanding, Recommendation, Graph Neural Network
- Advisor: Prof. Chanyoung Park

Korea Advanced Institute of Science and Technology (KAIST) *Daejoen, South Korea*

M.S IN INDUSTRIAL & SYSTEMS ENGINEERING *Aug 2021 - Jul 2023*

- GPA: 3.58/4.3
- Research Interest: Scene Understanding, Recommendation, Graph Neural Network
- Advisor: Prof. Chanyoung Park

Hanyang University *Seoul, South Korea*

B.S. IN INDUSTRIAL ENGINEERING *Mar 2016 - Jul 2021*

- GPA: 4.09/4.5
- Early Graduation
- The period includes two years of military service, required for all Korean men

Projects

2022.06-Present	**AI Development for reasoning, extraction, understanding of Common-sense** Collaboration with **I**nstitute for **I**nformation & communications **T**echnology **P**lanning & evaluation (IITP)
2021.06-Present	**Visual Intelligence Technique Development** Collaboration with **E**lectronics and **T**elecommunications **R**esearch **I**nstitute (ETRI)
2020.12-2021.06	**Recommending Financial Product based on Graph Embeddings** Collaboration with Hana Bank

Publications

PREPRINT

(**Preprint 2023**) Kibum Kim, Kanghoon Yoon, Jaehyeong Jeon, Yeonjun In, Jinyoung Moon, Donghyun Kim, Chanyoung Park. LLM4SGG: Large Language Model for Weakly Supervised Scene Graph Generation.

CONFERENCE

(**ICLR 2024**) Kibum Kim*, Kanghoon Yoon*, Yeonjun In, Jinyoung Moon, Donghyun Kim, Chanyoung Park. Adaptive Self-training Framework for Fine-grained Scene Graph Generation. The Twelfth International Conference on Learning Representations.

(**SIGIR 2023**) Kibum Kim, Dongmin Hyun, Sukwon Yun, Chanyoung Park. MELT: Mutual Enhancement of Long-Tailed User and Item for Sequential Recommendation. The 46th International ACM SIGIR Conference on Research and Development in Information Retrieval

(**AAAI 2023**) Kanghoon Yoon*, Kibum Kim*, Jinyoung Moon, Chanyoung Park. Unbiased Heterogeneous Scene Graph Generation with Relation-aware Message Passing Neural Network. Proceedings of the AAAI Conference on Artificial Intelligence 2023

(**CIKM 2022**) Sukwon Yun, Kibum Kim, Kanghoon Yoon, Chanyoung Park. LTE4G: Long-Tail Experts for Graph Neural Networks. Proceedings of the 31st ACM International Conference on Information & Knowledge Management

Awards & Scholarship

2022 **Poster Competition Excellence Award**
Awarded at Industrial/Social Problem Solving Session held by Department of ISysE, KAIST

2022 **Hanyang Academic Achievement Award**
Awarded within the top 3% among the College of Engineering, Hanyang Univ.

2020 **Hanyang Brain Scholarship**
Scholarship for excellent top 5% grade in Industrial Engineering department, Hanyang Univ.

2020 **Outstanding Learning Activities Scholarship**
Outstanding learning activities in communities held by University Innovation Support

2017 **Hanyang Brain Scholarship**
Scholarship for excellent top 5% grade in Industrial Engineering department, Hanyang Univ.

Professional Services

Conference Review

- 2023 - AAAI Conference on Artificial Intelligence (AAAI)

Journal Review

- 2023 - IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

Teaching Experience

Spring 2022 **KSE527: Machine Learning for Knowledge Service**
Teaching Assistant

Fall 2022 **KSE801: Recommender System and Graph Machine Learning**
Teaching Assistant

Talks & Seminars

Jun 2023 **MELT: Mutual Enhancement of Long-Tailed User and Item for Sequential Recommendation**
Top Conference Session of Korea Computer Congress (KCC) 2023

Activities

2021.12-2022.02 **Research intern in Data Science & Artificial Intelligence Lab (DSAIL)**
Implemented key papers on Graph Neural Networks and Recommender Systems (link)

2018.06-2018.07 **Short-term Language Study Program in China**
Cultural exchange activities at Changchun University

References

Prof. Chanyoung Park, Assistant professor, KAIST
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