MINSANG KIM

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https://kmswin1.github.io/about

RESEARCH INTERESTS

Graph Neural Network, Natural Language Processing, Knowledge Graph, Self-supervised learning

EDUCATION

Korea University, Seoul, South Korea *2021 - 2023*
Master of Science in Engineering
Department of Computer Science and Engineering
System Intelligence Group (SING)
Research area : Graph Neural Network, Natural Language Processing, Machine Learning
Advisor : professor Seungjun Baek

Korea University, Seoul, South Korea *2013 - 2019*
Bachelor of Science in Engineering
Department of Computer Science and Engineering
Data mining and visual analytics Lab (DAVIAN)
Research area : Natural Language Processing, Machine Learning
Advisor : professor Jaegul Choo

WORK EXPERIENCE

Kakao Enterprise. (a.k.a Kakao Corp. AI Lab), South Korea December 2019 - current
Machine Learning Research Engineer

· Research area : Graph Neural Network, Natural Language Processing, Machine Learning, Knowledge graph

Kakao Corp. AI Lab, South Korea July 2019 - December 2019
Machine Learning Research Engineer

· Research area : Graph Neural Network, Natural Language Processing, Machine Learning, Knowledge graph

PUBLICATIONS

- ComDensE : Combined Dense Embedding of Relation-aware and Common Features for Knowledge Graph Completion - **Minsang Kim**, Seungjun Baek
  International Conference on Pattern Recognition (ICPR), 2022, *Accepted*
- OASYS: Domain-Agnostic Automated System for Constructing Knowledge Base from Unstructured Text - **Minsang Kim***, Sang-Hyun Je*, Eunjoo Park (*: equal contributions)
  ACM SIGKDD Workshop on Mining and Learning with Graphs (KDD-MLG), 2022, *Accepted*

PROJECTS

2021.10 - current : Kakao Enterprise
I have developed Open-Domain QA for Kakao-i system, NLI2DB (convert natural language to SQL), and cross-document language modeling. (estimate semantic network and post-train LMs.).

2021.10 - current : Kakao Enterprise

I have developed graph-based models such as link prediction, and community detection for network analysis project (such as how workers in specific company collaborate with, how workers would collaborate in the future etc.).

2021.07 - 2021.12 : Kakao Enterprise
I had developed Sequence to sequence model for triple (knowledge) to text generation task.

2020.08 - 2021.12 : Kakao Enterprise
I had developed a knowledge graph auto-construction system without labeled data where our company requires some automatic training service system for B2B business.

2020.05 - 2021.02 : Kakao Enterprise
I developed personalized member ranking system for KakaoWork that B2B messenger service in our company.

2019.07 - 2020.3 : Kakao Corp.
I had developed Daum search engine that is one of the most famous search engine in South Korea contents search ranking system.

2018.07 - 2019.06 : Data visualization and analytics Lab
I'd researched Machine translation (topic : Personalized Neural Machine translation)

LEADERSHIP EXPERIENCES

2019.07 - current : Kakao Corp & Kakao Enterprise
Lead several projects and team research seminar.
I had led several service projects in my companies. First, I had developed Daum search engine that is oone of the most famous search engines in South Korea. Second, I developed a personalized member ranking system for KakaoWork that B2B messenger service in our company. In addition, I had developed a knowledge graph auto-construction system without labeled data where our company requires some automatic training service system for B2B business. Third, I have developed graph-based models such as link prediction, and community detection for network analysis project (such as how workers in specific company collaborate with, how workers would collaborate in the future etc.). Finally, I have developed Open-Domain QA for Kakao-i system, NLI2DB (convert natural language to SQL), and cross-document language modeling. (estimate semantic network and post-train LMs.)

2017.07 - 2017.08 : Draper University, San Mateo
KIC college R2BD program : Complete Entrepreneurship program.
I introduced a pill scanner that classifies what kind of pills by using a deep learning model and then developed a business plan for this project. Finally, I presented my project result in front of a lot of international students and Tim Draper who is a famous venture capital investor in Silicon Valley.

TECHNICAL STRENGTHS

Research Area	GNN, NLP, KG, Self-supervised learning
Software, Tools	python(advanced), pytorch(advanced), pyspark(advanced), LATeX(advanced)

LANGUAGE PROFICIENCY

- Korean (Native proficiency)
- English (Advanced proficiency)