

# Hyeongjun Yang

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## RESEARCH INTERESTS

**Applications:** *Conversational Recommendation / Knowledge-enhanced Recommendation / Knowledge-grounded Dialogue Systems*

**Approaches:** *Multimodal Knowledge Augmentation / Data-efficient Learning / Knowledge Distillation / LLM Distillation / Coreset Selection / PEFT / RAG*

## EDUCATION

<b>Yonsei University, South Korea</b> <i>Ph.D. in Computer Science (Advisor: Prof. Kyong-Ho Lee)</i> - Thesis: "Towards Conversational Recommender Systems with Contextual Intelligence"	Mar 2020 – Feb 2026
<b>California State University, San Bernardino, United States</b> <i>Exchange Student in Computer Science</i>	Sep 2018 – Jun 2019
<b>Dankook University, South Korea</b> <i>B.S. in Software Engineering</i> - Mandatory military service (Oct 2015 - Jul 2017)	Mar 2013 – Feb 2020

## PUBLICATIONS

(★ denotes first-authored publications)

[13] "RPO-RAG: Aligning Small LLMs with Relation-aware Preference Optimization for Knowledge Graph Question Answering"  
Kaehyun Um, Kyuhwan Yeom, Haerim Yang, Minyoung Choi, Hyeongjun Yang, Kyong-Ho Lee  
Under Review

[12] "Retrieval-Augmented Knowledge Graph Validation with Large Language Model Reasoning"  
Donghyun Kim, Hyeongjun Yang, Chanhee Lee, Seokju Hwang, Kyong-Ho Lee  
Under Review

[11] "Data-Efficient Adaptation to Contextual Shifts in LLM-based Conversational Recommendation"  
Hyeongjun Yang★, Kyong-Ho Lee  
Under Review

[10] "Reliable Distillation of Recommendation Rationales from Large Language Models for Enhanced Conversational Recommendation"  
Hyeongjun Yang★, Donghyun Kim, KyuHwan Yeom, Kyong-Ho Lee  
Under Review

[9] "Active Learning Framework for Improving Knowledge Graph Accuracy"  
Donghyun Kim, Hyeongjun Yang, Seokju Hwang, Kyuhwan Yeom, Midan Shim, Kyong-Ho Lee  
IEEE Access 2025 [paper]

[8] "CoreSense: Social Commonsense Knowledge-Aware Context Refinement for Conversational Recommender System"  
Hyeongjun Yang★, Donghyun Kim, Gayeon Park, KyuHwan Yeom, Kyong-Ho Lee  
IEEE Transactions on Knowledge and Data Engineering (Vol. 37) 2025 [paper]

[7] "Knowledge-constrained Interest-aware Multi-Behavior Recommendation with Behavior Pattern Identification"  
Gayeon Park, Hyeongjun Yang, KyuHwan Yeom, Myeongheon Jeon, Yunjeong Ko, Byungkook Oh, Kyong-Ho Lee

Information Sciences (Vol. 692) 2025 [paper]

[6] "Granular Intents Learning via Mutual Information Maximization for Knowledge-aware Recommendation"  
Hyeongjun Yang★, Yerim Lee, Gayeon Park, TaeYoung Kim, Heesun Kim, Kyong-Ho Lee, Byungkook Oh

Knowledge-based Systems (Vol. 306) 2024 [paper]

[5] "Bottom-up propagation of hierarchical dependency for multi-behavior recommendation"

{TaeYoung Kim, Hyeongjun Yang★}, Gayeon Park, Seungmi Lee, Kyong-Ho Lee

Engineering Applications of Artificial Intelligence (Vol. 138) 2024 [paper]

[4] "Embedding Two-View Knowledge Graphs with Class Inheritance and Structural Similarity"

Kyuhwan Yeom, Hyeongjun Yang, Gayeon Park, Myeongheon Jeon, Yunjeong Ko, Byungkook Oh, Kyong-Ho Lee

KDD 2024 [paper]

[3] "Cross-Modal Contrastive Learning for Aspect-based Recommendation"

Heesoo Won, Byungkook Oh, Hyeongjun Yang, Kyong-Ho Lee

Information Fusion (Vol. 99) 2023 [paper]

[2] "Confident Action Decision via Hierarchical Policy Learning for Conversational Recommendation"

Heeseon Kim, Hyeongjun Yang, Kyong-Ho Lee

WWW 2023 [paper]

[1] "CLICK: Contrastive Learning for Injecting Contextual Knowledge to Conversational Recommender System"

Hyeongjun Yang★, Heesoo Won, Youbin Ahn, Kyong-Ho Lee

EACL 2023 [paper]

## PROJECTS

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Refining User Preferences by Leveraging Knowledge Graphs for Conversational Recommender System

Mar 2022 – Feb 2025

w/ National Research Foundation of Korea (NRF)

- **Project Leader:** Proposal / Research Planning / Development / Validation / Publication
- Related Publications: [1], [2], [3], [8], [9]

Query Intent-based Information Retrieval from Knowledge Graphs

Dec 2023 – Dec 2024

w/ Samsung Research

- **Project Coordinator:** Proposal / Research Planning

Ontology-based Multi-type Interaction Modeling

Dec 2022 – Dec 2023

w/ Samsung Research

- **Project Leader:** Proposal / Research Planning / Development / Validation / Publication
- Related Publications: [4], [7]

Knowledge Graph based Intent-Community Detection

Dec 2021 – Dec 2022

w/ Samsung Research

- **Project Leader:** Proposal / Research Planning / Development / Validation / Publication
- Related Publications: [5], [6]

Development of XAI-based Technology for Smart Energy Platform

Mar 2020 – Feb 2021

w/ Korea Electric Power Research Institute (KEPRI)

- **Project Member:** Data Collection / Validation
- Energy Ontology Design & Knowledge Graph Construction

## SKILLS

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(Underlined skills indicate preferred expertise.)

**Programming Languages:** Python / C / C++

**AI & ML Frameworks:** PyTorch / HuggingFace / TensorFlow

**Knowledge Graphs & Ontologies:** RDF / OWL / SPARQL

**Development Tools:** Git / Docker