# **Jeonghwan Kim**

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 ₲ Google Scholar

## Research Interests \_\_\_\_

### Natural Language Processing (NLP), Multimodal Large Language Models (LLMs), Deep Learning

Large Vision-Language Models (VLMs), Retrieval-Augmented Generation (RAG), Representation Learning, Multi-Hop Question Answering (QA), Numeracy in LLMs, and Model Interpretability and Robustness.

## Education \_\_\_\_\_

## University of Illinois at Urbana-Champaign (UIUC)

Ph.D. Candidate in Computer Science (Advisor: Heng Ji ☑)

Champaign, USA Aug 2023 – Present

**KAIST** Daejeon, South Korea

Feb 2022

M.S. in Computer Science (Advisor: Sung-Hyon Myaeng ☑)
Thesis Committee: Sung-Hyon Myaeng, Alice Oh, Junho Lim

GPA: 4.13/4.30

#### **Handong Global University**

B.S. in Computer Science & Electrical Eng. (Advisor: Heeyoul Henry Choi ☑)

Magna Cum Laude (Overall GPA: 4.11/4.5 | Major GPA: 4.21/4.5)

Pohang, South Korea

Feb 2020

## Experience \_

Meta — Research Scientist Intern

Working on Retrieval-Augmented Generation (RAG) and multimodal LLMs.

May 2025 – Present Bellevue, USA

Redmond, USA

**Amazon — Applied Scientist Intern** 

Developed a generalizable multimodal encoder for geospatial applications.

May 2024 – Aug 2024

**BLENDER Lab, UIUC — Research Assistant** 

Research on Multimodal LLMs and reasoning.

Champaign, USA Aug 2023 – Present

**KAIST IR&NLP Lab** — Research Associate

Developed graph and RAG-based language modeling approaches for QA.

Daejeon, Korea Mar 2022 – Jul 2023

Republic of Korea Marine Corps — Sergeant

Served as a rifleman and interpreter for the ROK-US Combined Marine Command.

Pohang, Korea Mar 2015 – Dec 2016

## **Publications**

[1] Infogent: An Agent-based Framework for Web Information Aggregation

Revanth Gangi Reddy\*, Sagnik Mukherjee\*, **Jeonghwan Kim\***, Zhenhailong Wang\*, Dilek Hakkani-Tur, Heng Ji

**NAACL 2025, Findings** 

[2] Aligning LLMs with Individual Preferences via Interaction

Shujin Wu, May Fung, Cheng Qian, **Jeonghwan Kim**, Dilek Hakkani-Tur, Heng Ji

**COLING 2025** 

[3] Finer: Investigating and Enhancing Fine-Grained Visual Concept Recognition in Large Vision Language Models Jeonghwan Kim, Heng Ji

**EMNLP 2024** 

[4] Why So Gullible? Enhancing the Robustness of Retrieval-Augmented Models against Counterfactual Noise Giwon Hong\*, Jeonghwan Kim\*, Junmo Kang\*, Sung-Hyon Myaeng, Joyce Jiyoung Whang

[5] FinePrompt: Unveiling the Role of Finetuned Inductive Bias on Compositional Reasoning in GPT-4 Jeonghwan Kim\*, Giwon Hong\*, Sung-Hyon Myaeng, Joyce Jiyoung Whang

**EMNLP 2023, Findings** 

[6] **Graph-Induced Transformers for Efficient Multi-Hop Question Answering** *Giwon Hong, Jeonghwan Kim, Junmo Kang, Sung-Hyon Myaeng* 

**EMNLP 2022** 

[7] Exploiting Numerical-Contextual Knowledge to Improve Numerical Reasoning in Question Answering Jeonghwan Kim, Junmo Kang, Kyung-min Kim, Giwon Hong, Sung-Hyon Myaeng

**NAACL 2022, Findings** 

[8] Have You Seen That Number? Investigating Extrapolation in Question Answering Models Jeonghwan Kim, Giwon Hong, Kyung-min Kim, Junmo Kang, Sung-Hyon Myaeng

**EMNLP 2021** 

[9] Leveraging Order-Free Tag Relations for Context-Aware Recommendation Junmo Kang, Jeonghwan Kim, Suwon Shin, Sung-Hyon Myaeng

**EMNLP 2021** 

[10] Can You Distinguish Truthful from Fake Reviews? User Analysis and Assistance Tool for Fake Review Detection Jeonghwan Kim\*, Junmo Kang\*, Suwon Shin\*, Sung-Hyon Myaeng

**HCI+NLP Workshop, EACL 2021** 

[11] Maximizing Efficiency of Language Model Pre-training for Learning Representation Junmo Kang\*, Suwon Shin\*, Jeonghwan Kim\*, Jaeyoung Jo\*, Sung-Hyon Myaeng

KSC 2020

- [12] **Object Classification on Raw Radar Data Using Convolutional Neural Networks**Heejae Han, **Jeonghwan Kim**, Junyoung Park, YuJin Lee, Hyunwoo Jo, Yonghyeon Park, Eric T Matson, Seongha Park **IEEE SAS 2019**
- [13] **Towards the Development and Realization of an Undetectable Stealth UAV** *Jiyeon Oh, Daeun Choe, Chanhui Yun, Jeonghwan Kim, Michael Hopmeier*

Raw radar data object detection and stealth UAV design.

**IEEE IRC 2019** 

# **Projects**

Projects	
Development of Expert Decision-making Support Al  Development of AI technology for explainable expert decision-making.  Funded by the Korean Government (Ministry of Science and ICT)	Apr 2022 – Jul 2022
Contextual-Numerical Embedding for Reasoning  Development of context-number embedding for numerical reasoning in QA.  Funded by the Korean Government (Ministry of Science and ICT)	Jul 2021 – Dec 2021
<b>ExoBrain</b> Development of Knowledge Evolutionary WiseQA Platform Technology.  Funded by the Korean Government (Ministry of Science and ICT)	Apr 2020 – Jul 2023
Smart Interaction and Context Association  Machine Learning for Context Association and Smart Interaction Suggestion.  Funded by the Korean Government (Ministry of Science and ICT)	Apr 2020 – Mar 2021
AI-based National Online Petition System  Development of AI-based national Online Petition System for citizen deliberation.  Funded by KAISTs Exploratory Research Program	Apr 2021 – Dec 2021
Purdue University - IITP Capstone	Aug 2018 – Dec 2018

## **Honors & Awards**

- 2020: Graduated with Honors in CSE, Magna Cum Laude (Handong Global University)
- 2020: Finalist (Top 3), COMEUP2020 AI CHAMPIONSHIP (K-Startup)
- 2019: Grand Prize, Capstone Graduation Project Festival (Handong Global University, CSEE)
- 2018: Certificate of Merit, IITP Capstone 9 Program (Purdue University)
- 2018: Finalist (Top 15), NAVER AI Hackathon (NAVER AI RUSH)
- 2017: National Science and Technology Scholarship, Korea Student Aid Foundation (KOSAF)

## Teaching .

- Aug 2020 Jun 2021: Teaching Assistant, Senior Data Science, Samsung SDS
- Jun 2021 Jul 2021: Teaching Assistant, Text Mining, SKKU Global Business School
- Mar 2021 Dec 2021: Teaching Assistant, Text Mining, KAIST
- Mar 2019 Jun 2019: Teaching Assistant, Data Structures, Handong Global University

## Technical Skills

**Programming:** Python, Pytorch, C, C++, Java, Dart

Frameworks: Pytorch, TensorFlow, Theano, Docker, Huggingface, OpenCV, Flutter, Firebase, DGL

Tools: SpaCy, NLTK, Seaborn, Matplotlib