Jeonghwan Kim

Champaign, USA jk100@illinois.edu wjdghks950.github.io 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) — Champaign, USA
Ph.D. Candidate in Computer Science (Advisor: Heng Ji) — Aug 2023 – Present

KAIST — Daejeon, South Korea
M.S. in Computer Science (Advisor: Sung-Hyon Myaeng) — Feb 2022
Thesis Committee: Sung-Hyon Myaeng, Alice Oh, Junho Lim
GPA: 4.13/4.30

Handong Global University — Pohang, South Korea
B.S. in Computer Science & Electrical Engineering (Advisor: Heeyoul Henry Choi) — Feb 2020
Magna Cum Laude (Overall GPA: 4.11/4.5 | Major GPA: 4.21/4.5)

Experience

Meta — Research Scientist Intern — Redmond, USA
Working on Retrieval-Augmented Generation (RAG) and multimodal LLMs. — May 2025 – Present

Amazon — Applied Scientist Intern — Bellevue, USA
Developed a generalizable multimodal encoder for geospatial applications. — May 2024 – Aug 2024

BLENDER Lab, UIUC — Research Assistant — Champaign, USA
Research on Multimodal LLMs and reasoning. — Aug 2023 – Present

KAIST IR&NLP Lab — Research Associate — Daejeon, Korea
Developed graph and RAG-based language modeling approaches for QA. — Mar 2022 – Jul 2023

Republic of Korea Marine Corps — Sergeant — Pohang, Korea
Served as a rifleman and interpreter for the ROK-US Combined Marine Command. — 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*

NAACL 2024, Findings

[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*
IEEE IRC 2019

Projects

Development of Expert Decision-making Support AI Apr 2022 – Jul 2022
Development of AI technology for explainable expert decision-making.
Funded by the Korean Government (Ministry of Science and ICT)

Contextual-Numerical Embedding for Reasoning Jul 2021 – Dec 2021
Development of context-number embedding for numerical reasoning in QA.
Funded by the Korean Government (Ministry of Science and ICT)

ExoBrain Apr 2020 – Jul 2023
Development of Knowledge Evolutionary WiseQA Platform Technology.
Funded by the Korean Government (Ministry of Science and ICT)

Smart Interaction and Context Association Apr 2020 – Mar 2021
Machine Learning for Context Association and Smart Interaction Suggestion.
Funded by the Korean Government (Ministry of Science and ICT)

AI-based National Online Petition System Apr 2021 – Dec 2021
Development of AI-based national Online Petition System for citizen deliberation.
Funded by KAISTs Exploratory Research Program

Purdue University - IITP Capstone Aug 2018 – Dec 2018
Raw radar data object detection and stealth UAV design.

Funded by the Korean Government (IITP)

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