### Kangsan Kim

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#### Research Interests

My research interest lies in developing AI assistants that understand the world and interact with humans through visual data. Previous works focus on video understanding for real-world applications, including out-of-domain video understanding and video-based multimodal RAG. I am also interested in embodied MLLMs that operate on egocentric video with strong spatial reasoning ability.

#### Education

KAIST
Ph.D. in Artificial Intelligence

Seoul, S. Korea
Mar 2024 - Present

Advisor: Prof. Sung Ju Hwang

KAIST
Daejeon, S. Korea
B.S. in Computer Science
Mar. 2018 - Feb. 2024

Minor in Business and Technology Management

### Experience

B GARAGE San Jose, CA, United States

Computer Vision Engineer Intern

Oct 2022 - Jul 2023

Developed an ultra-fast edge instance segmentation model that can segment anything in the warehouse.

NAVER (Papago)

Remote

Machine Learning(NLP) Scientist Intern

Jul 2021 - Nov 2021

Built and improved end-to-end Korean-English speech translation model.

#### **Publications**

#### HoliSafe: Holistic Safety Dataset and Benchmark for Vision-Language Models

Youngwan Lee, <u>Kangsan Kim</u>, Kwanyong Park, Ilchae Jung, Soojin Jang, Seanie Lee, Yong-Ju Lee, Sung Ju Hwang

Under review, 2025

## UniversalRAG: Retrieval-Augmented Generation over Multiple Corpora with Diverse Modalities and Granularities

Woongyeong Yeo\*, <u>Kangsan Kim\*,</u> Soyeong Jeong, Jinheon Baek, Sung Ju Hwang Under review, 2025

#### VideoRAG: Retrieval-Augmented Generation over Video Corpus

Soyeong Jeong\*, Kangsan Kim\*, Jinheon Baek\*, Sung Ju Hwang

Findings of the Association for Computational Linguistics (ACL Findings), 2025

# VideoICL: Confidence-based Iterative In-context Learning for Out-of-Distribution Video Understanding

Kangsan Kim\*, Geon Park\*, Youngwan Lee, Woongyeong Yeo, Sung Ju Hwang Conference on Computer Vision and Pattern Recognition (CVPR), 2025

\*: equal contribution

#### Honors

Qualcomm-KAIST Innovation Award, 2023

Dean's List, College of Engineering, 2020 Spring