

Hyounsoo Kim

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Research Interests

I am currently interested in Computer Vision and Image-Text alignment research. Specifically, my research focuses on open-vocabulary object detection where I explore how vision-language models can generalize to unseen categories and tasks.

Education

Chung-Ang University

B.S. in Computer Science & Engineering Major

Seoul, Korea

Mar 2022 - Current

- GPA: 3.98/4.5 (overall), 4.0/4.5 (major)

Related Experience

MULTI Lab

Seoul, Korea

Undergraduate Researcher, Advised by Professor Bumsoo Kim

September 2024 - Current

- Conducted research on **open-vocabulary object detection**, focusing on training strategies and evaluation.
- Research **Image-to-Text alignment**.

Honors & Awards

Nov. 2-3,
2024 **Silver Prize**, 4th Uni-D Datathon

Seoul, Korea

Projects

Korean fairytale finetuning of Llama 3.2 models using LoRA

Korea

Capstone Project, Advised by Professor Bumsoo Kim

Mar 2025 - Jun 2025

- Using RAG to retrieve story content based on embedding vector relevance for processing long sequences
- Using prohibited terms and employing prompt engineering to filter out vulgar or sexually explicit language
- Modified emulated kernel driver to distinguish GPU ID and doorbell region of each GPU from others

Airbus Ship Detection Challenge

Korea

Kaggle (CUAI Project)

Aug 2024 - Dec 2024

- Performed ship detection and segmentation on satellite imagery using Mask R-CNN with ResNet-50 backbone
- Applied data augmentation techniques (rotation, flipping) to improve generalization on imbalanced dataset
- Implemented post-processing with non-maximum suppression (NMS) and threshold tuning to reduce false positives in crowded scenes
- Achieved competitive IoU score improvement compared to baseline models in the challenge

Extracurricular Activities

Mar 2024 – Feb 2024	CUAI, 7th Cohort Member , Artificial Intelligence Academic Society at Chung-Ang University
Sep 2023 – Feb 2024	UMC, 5th Generation Server Part , University MakeUs Challenge – Server Development Track
Feb 2024 – Aug 2024	UMC, 6th Generation Web Part , University MakeUs Challenge – Web Development Track