

# Jongha Kim

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<https://jonghakim35.github.io/>

EDUCATION	<b>Korea University</b> M.S. & Ph.D. Integrated Student in Computer Science and Engineering Advised by Professor Hyunwoo J. Kim at MLV Lab, Korea University	Seoul, Republic of Korea Sep 2022 - Current
	<b>Korea University</b> B.S. in Computer Science and Engineering B.S. in Statistics (Double Major) GPA : 4.22 / 4.5 (Major : 4.25 / 4.5)	Seoul, Republic of Korea Mar 2018 - Aug 2022
RESEARCH INTERESTS	My goal is to develop personalized and reliable multimodal AI agents. My research focuses on personalizing Multimodal Large Language Models, exploring post-training methods ( <i>e.g.</i> , DPO), systems ( <i>e.g.</i> , RAG), and ways to leverage structured representations to complement these models to achieve the goal.	
PUBLICATIONS	<p>[1] <b>VidChain: Chain-of-Tasks with Metric-based Direct Preference Optimization for Dense Video Captioning</b> Ji Soo Lee*, Jongha Kim*, Jeehye Na, Jinyoung Park, Hyunwoo J. Kim AAAI Conference on Artificial Intelligence (AAAI), 2025. [paper]</p> <p>[2] <b>Groupwise Query Specialization and Quality-Aware Multi-Assignment for Transformer-based Visual Relationship Detection</b> Jongha Kim*, Jihwan Park*, Jinyoung Park*, Jinyoung Kim, Sehyung Kim, Hyunwoo J. Kim IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024. [paper]</p> <p>[3] <b>Concept Bottleneck with Visual Concept Filtering for Explainable Medical Image Classification</b> Injae Kim*, Jongha Kim*, Joonmyung Choi, Hyunwoo J. Kim MedAGI Workshop at International Conference on Medical Image Computing and Computer-Assisted Intervention (MedAGI@MICCAI), 2023 (Oral Presentation). [paper]</p> <p>[4] <b>Object Detection in Aerial Images with Uncertainty-Aware Graph Network</b> Jongha Kim, Jinheon Baek, Sung Ju Hwang VOLI Workshop at European Conference on Computer Vision (VOLI@ECCV), 2022. [paper]</p> <p>[5] <b>Relevance-aware Multi-context Contrastive Decoding for Retrieval-augmented Visual Question Answering</b> Jongha Kim, Byungoh Ko, Jeehye Na, Jinsung Yoon, Hyunwoo J. Kim Under Review</p> <p>(* denotes equal contribution)</p>	
WORK EXPERIENCES	<b>MLV Lab</b> • M.S. & Ph.D. Integrated Student at MLV Lab, Korea University • Advised by Professor Hyunwoo J. Kim, Korea University	Seoul, Republic of Korea Sep 2022 - Current
	<b>MLAI Lab</b> • Undergraduate Research Intern at MLAI Lab, KAIST • Advised by Professor Sung Ju Hwang, KAIST	Seoul, Republic of Korea Jan 2021 - Jul 2022
	<b>Upstage AI</b> • Teaching Assistant & Mentor of BoostCamp AI Tech 1-3rd course • Developed course materials, and assignments and handled questions about lectures and assignments.	Seongnam, Republic of Korea Dec 2020 - Jun 2022

- Collaborated with Professor Tae Hyun Oh, POSTECH

### **VoyagerX**

Seoul, Republic of Korea

- Developer Intern Jul 2020 - Jan 2021
- Developed, enhanced, and deployed deep learning models for scanning books and documents in the mobile scanner application vFlat.

### **SW Maestro**

Seoul, Republic of Korea

- 10'th trainee at SW Maestro Program May 2019 - Nov 2019
- Developed and deployed a backend server and a deep learning model for a smartphone application DalDang, measuring the sugar content of an apple.

## **PATENTS**

### **Information providing method and system for sharing fruit information including sugar content information measured through image vision processing.**

Sanghoon Lee, Hyemin Song, Jongha Kim, Hyun Kim.

Korea Patent No.10-2020-0153010.

### **Method for measuring sugar content of apple using image.**

Sanghoon Lee, Hyemin Song, Jongha Kim.

Korea Patent No.10-2242155, registered on Apr 14, 2021

## **HONORS & AWARDS**

### **Travel Grant for CVPR 2024**

Jun 2024

CVPR 2024

### **Graduate School Outstanding Freshman Scholarship**

Sep 2022

Korea University

### **Dean's List**

Spring 2019

Korea University

### **Semester High Honors**

Fall 2018/2019/2021, Spring 2019/2020/2021

Korea University

### **2020 Agrifood Public Big Data Startup Competition**

Aug 2020

Rural Development Administration

### **National Scholarship for Science and Engineering**

Spring 2018 - Spring 2022

Korea Student Aid Foundation

## **ACADEMIC SERVICES**

Reviewer of **NeurIPS** (Conference on Neural Information Processing System)

2024

Reviewer of **CVPR** (IEEE/CVF Conference on Computer Vision and Pattern Recognition)

2024,2025

Reviewer of **ICLR** (International Conference on Learning Representations)

2025

Reviewer of **AAAI** (AAAI Conference on Artificial Intelligence)

2025

Reviewer of **AISTATS** (International Conference on Artificial Intelligence and Statistics)

2025

Reviewer of **ICML** (International Conference on Machine Learning)

2025

Program Committee of **MedAGI@MICCAI** (MedAGI Workshop at International Conference on

2024

Medical Image Computing and Computer-Assisted Intervention)

## **TALKS**

### **Teaching Assistant**

Seoul, Republic of Korea

Special Topics in Artificial Intelligence (AAA740), Korea University

Fall 2024

### **Korea University & LG AI Workshop**

Seoul, Republic of Korea

Korea University

Feb 2023

### **Defining and solving problems in deep learning projects**

Virtual

BoostCamp AI Tech 2nd course, Upstage AI

Nov 2021

## SKILLS

### Language

- Korean (*native*)
- English (*fluent*), TEPS : 544/600 (*officially described as 'Native Level of English Proficiency'*)

### Programming Skills

- Python, PyTorch, Git, Bash (Most proficient)
- TensorFlow, SQL, Node.js, React.js, Vue.js (Experienced)
- Website built: [MedAGI Workshop 2024](#), [Personal Blog](#)

*Last Updated: Jan 15, 2025*