

EDUCATION

DGIST (Daegu Gyeongbuk Institute of Science and Technology)

M.S., Electrical Engineering and Computer Science

- Advisor: Prof. Jinhyun So

Daegu, Korea

Feb 2025 – Current

Jeonbuk National University

B.S., Double Major

- Division of Computer Science and Engineering
- Department of Smart Farm
- Cumulative GPA: 4.14/4.50; Major GPA: 4.21/4.50

Jeonju, Korea

May 2021 – Feb 2024

EXPERIENCE

Graduate Researcher

Collaborative, Reliable, and Efficient AI Lab., Advisor: Prof. Jinhyun So

- Developed a unified olfaction framework for single molecules and two-molecule mixtures (ICASSP 2026)
- Conducted research on hand pose estimation from asynchronous multi-modal bio-signals

DGIST

Feb 2025 – Current

Undergraduate Researcher

Medical AI & Computational Science Lab., Advisor: Prof. Kyungsu Lee

- Studied rotator cuff segmentation from ultrasound images

Jeonbuk National University

Apr 2024 – Dec 2024

Undergraduate Researcher

Smart Digital Agriculture Lab., Advisor: Prof. Taegon Kim

- Modeled and analyzed crop yields for paprika and wheat using tabular growth data

Jeonbuk National University

Feb 2022 – Nov 2022

AWARDS

President's Award, Jeonbuk National University

2024

Grand Prize (Entrepreneurship Award), San Jose State University

2024

- Proposed RENNIS (Robot+Tennis), an personal tennis coaching robot

Best Excellence Award (K-Health Medical AI Hackathon-Track 01), Korea Smart Healthcare Association

2024

- Developed breast mass segmentation model from mammography images

- Link: <https://github.com/riverallzero/maithon>

Special Award in Service Category (ChatGPT Microsoft AzureThon), AI Factory

2023

- Developed chatbot that converts business card images into contact files by integrating multiple APIs

- Link: <https://github.com/riverallzero/azurethon>

PUBLICATIONS

Google Scholar: https://scholar.google.com/citations?user=UX_2oycAAAAJ&hl

D.Kang, JW.Kim, J.Park, K.Lee, JW.Choi, and J.So. "AROMMA: Unifying Olfactory Embeddings for Single Molecules and Mixtures", in *2026 International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, May 2026.

PROJECTS

Bidirectional Olfactory Converter Agent

Aug 2025 – Oct 2025

- LLM-powered odor prediction and recommendation agent leveraging AROMMA (ICASSP 2026)
- Stack: RAG (Retrieval-Augmented Generation), LangChain, Prompt Engineering
- Link: <https://github.com/riverallzero/aromma-agent>