Suhyun Kim

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EDUCATION

Yonsei University, *M.S./Ph.D. in Artificial Intelligence* **Mar 2024 – Present**
Ajou University, *B.S. in Physics & B.S. in Software and Computer Engineering* **Mar 2017 – Aug 2023**

RESEARCH EXPERIENCE

Medical Imaging and Computer Vision Lab, *Yonsei University* **Mar 2024 – Present**
M.S./Ph.D. Student

- **Hierarchy-Aware Brain-AI Alignment (DIVER-CLIP):**
  Developing a tri-modal foundation model by aligning iEEG embeddings with a audio-text latent space.
- **Medical Image Translation (Accepted to ISBI 2026):**
  Proposed a robust MRI modality translation method using Test-Time Augmentation.

Biomedical Photonics Lab, *Ajou University* **Jul 2022 – Feb 2023**
Undergraduate Researcher

- **Deep Learning for Hyperspectral Imaging (Published in J. Phys. D):**
  Designed physics-informed loss functions and synthetic data to enhance spectral resolution.

Computer System Lab, *Ajou University* **Sep 2021 – Jun 2022**
Undergraduate Researcher

- **System Optimization:**
  Analyzed memory management overhead in Linux hierarchical memory systems.

WORK EXPERIENCE

NextLab **Mar 2023 – Jun 2023**
AI Engineer

- **Cloud-based Vehicle Recognition System:**
  Developed an end-to-end AI training pipeline in a cloud environment and deployed optimized models for an automated parking management system.

PUBLICATIONS

[2] Jaewan Park, **Suhyun Kim**, Geunrip Park, Seongjae Hwang. "Towards ROI-free Modality Translation for MRI with Test-time Augmentation", *IEEE International Symposium on Biomedical Imaging (ISBI)*, 2026.

[1] **Suhyun Kim*,** Sera Jung*, Jonghee Yoon, "Study of a deep learning-based method for improving the spectral resolution of the spectral scanning hyperspectral imaging system via synthetic spectral image data" *Journal of Physics D: Applied Physics*, 2023.

HONORS & ACADEMIC SERVICE

Academic Service: Reviewer for IEEE ISBI 2026.

Scholarships:

- Baekam Foundation Scholarship**:** External grant for high future potential, 2025-Present.
- YGF Scholarship: Awarded for outstanding research potential, 2024.
- Lotte Foundation Scholarship: Full-ride for high-potential undergraduates, 2017 – 2020.

Awards & Grants :

- Blue Ladder Global Scholarship (Ministry of Education & KOSAF, 2022) – Government-funded overseas training; Selected as Student Representative.
- Encouragement Award in Research (Physics Dept. Poster Presentation, 2022).
- Excellence Award in Research (Softcon, 2021).

SKILLS

Languages & Frameworks: Python, C/C++, Java, MySQL, PyTorch.
Tools: Linux (Ubuntu/CentOS), HPC (KISTI), Cloud (Kakao i Cloud), Docker, Git, LaTeX, Markdown.