Jeongin Kim

B130-2, ECC, 52, Ewhayeodae-gil, Seodaemun-gu, Seoul, Republic of Korea
jn.kim@ewha.ac.kr github.com/jn-kim jn-kim.github.io

Research Interests

Low-Supervision Learning. Overcoming annotation dependency for scalable visual perception. My work emphasizes **active, weakly, and semi-supervised learning** to maximize data efficiency in tasks such as **semantic segmentation and object detection**.

Medical Domain Applications. Developing robust AI for clinical use by addressing sparse and imperfect labels. I explore **positive-unlabeled learning** for **Chest X-Rays**, focusing on precise disease classification/localization and longitudinal disease tracking.

Education

Ewha Womans University **March 2024 – February 2029 (Expected)**
M.S.–Ph.D., Artificial Intelligence (Advisor: Prof. Junhyug Noh) *Seoul, South Korea*

Kumoh National Institute of Technology **March 2019 – August 2023**
B.S., Electronic Engineering *Gumi, South Korea*

Work Experience

Ewha Womans University Medical Center (EUMC) **July 2025 – Present**
Graduate Research Assistant *Seoul, South Korea*

- Analyzing large-scale **CXR** datasets for precise **thoracic disease identification** in automated **computer-aided diagnosis (CAD) systems**.

DXR Co., Ltd **July 2024 – June 2025**
Research Intern *Seoul, South Korea*

- Developed a **generative AI pipeline** for **synthetic defect generation** to address industrial data scarcity.
- Leveraged **Stable Diffusion** with DreamBooth and LoRA fine-tuning to produce high-fidelity images for enhanced **anomaly detection**.

Publications

Jeongin Kim, Wonho Bae, YouLee Han, Giyeong Oh, Youngjae Yu, Danica J. Sutherland, Junhyug Noh, "Diffusion-Driven Two-Stage Active Learning for Low-Budget Semantic Segmentation." **NeurIPS 2025**.

Jeongin Kim, Otto Frederike, Yeon-Mo Yang, and Wansu Lim, "An efficient scheme on face recognitions by Eigenface analysis," **JKIIS**, vol. 33, no. 1, 2023.

Jeongin Kim, Paul Angelo Oroceo, and Wansu Lim, "Implementation of a Reliable VUI System on Edge Device," **KICS**, vol. 47, no. 8, 2022.

Awards

NeurIPS Scholar Award **December 2025**
NeurIPS 2025 *San Diego, USA*

3rd Prize, Autonomous Driving AI Algorithm Development Challenge **October 2023**
M.DataSync *Seoul, South Korea*

Invited Talks

MODUCON 2025 (MODULABS) **December 2025**
Track 01: AI to Reality with EWHA *Seoul, South Korea*

Technical Skills

Languages: Python, C/C++, MATLAB/Simulink
ML/DL Framework: PyTorch, TensorFlow
Operating Systems: Linux (Ubuntu), macOS, TinyOS
Tools & Skills: Git, Docker, Slurm (HPC), Vim, LaTeX
Embedded Systems: NVIDIA Jetson (Orin, TX2, Xavier NX, Nano), Raspberry Pi, Arduino, OpenBCI, LTE-M Module

Reviewer

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)