

Jinseo Kim

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EDUCATION

Chung-Ang University - B.S. in Software Engineering

Expected Feb 2028 | Seoul

- GPA: 4.17 / 4.5 | Additional majors: Financial AI Convergence and Next-Generation Semiconductor Engineering

The University of Hong Kong - Exchange Student, School of Computing and Data Science

Aug 2026 - Jun 2027 | Hong Kong

SKILLS

- Programming: Python, Java, C/C++, SQL | Tools: Git, Linux/Ubuntu, CUDA, Jupyter, VS Code, tmux
- ML/DL: PyTorch, scikit-learn, CNN, Transformer, YOLOv5, XGBoost, Random Forest, MLP
- Data/Evaluation: NumPy, pandas, preprocessing, normalization, LOSO cross-validation, ablation studies, mAP, AUPRC, confusion-matrix analysis

RESEARCH EXPERIENCE

Undergraduate Research Assistant @ SiR Lab, The University of Hong Kong

Sep 2026 - Present | Hong Kong

- Conducting literature review and developing a research proposal on situated reality, multimodal perception, and context-aware AI for interactive environments.

Undergraduate Research Intern @ IXLab, Chung-Ang University

Jul 2026 - Aug 2026 | Seoul

- Built ML/DL pipelines for five-class viewing-distance and nine-class gaze-direction classification from six-channel EOG data collected from 20 participants.
- Compared classical ML, 2D CNN, and Transformer models and evaluated participant-independent generalization using leave-one-subject-out cross-validation.

Undergraduate Research Intern @ KELab, Chung-Ang University

Mar 2026 - Jun 2026 | Seoul

- Modeled user intent and travel context from online review data; collected, cleaned, and preprocessed Reddit travel-review data in Python for recommender-system research.

PROJECTS

EOG-Based Gaze Direction & Viewing-Distance Classification | Python, PyTorch, scikit-learn

2026

- Designed preprocessing, temporal-windowing, and evaluation pipelines for six-channel EOG signals from 20 participants; compared RF/XGBoost/MLP with CNN and Transformer models.
- Achieved 49.53% accuracy on nine-class gaze-direction classification with a 5-second CNN window and analyzed LOSO generalization, normalization, and segmentation choices.

Thermal UAV Missing-Person Detection under Unseen Domains | YOLOv5, FDA

2026

- Co-developed a single-domain generalization framework using multi-condition Fourier Domain Adaptation, thermal contrast augmentation, and detection-stabilization losses.
- Improved mAP50 from 3.8 to 21.7 on VTSaR and from 12.4 to 23.2 on WiSARD without target-domain fine-tuning; work presented at the 2026 IEIE Summer Conference.

Clinically Reliable Synthetic Chest X-Ray Dataset Construction | Medical AI

2026

- Built a multi-agent validation workflow for RoentGen-v2 and Stable Diffusion-generated MIMIC-CXR samples targeting low-prevalence findings.
- Reduced false acceptance of invalid synthetic pairs from 74.4% to 2.1%; improved pneumothorax AUPRC from 0.18 to 0.27 and recall from 0.41 to 0.58.

Context-Aware Travel Recommendation | Python, Recommender Systems

2026

- Modeled user intent and travel context from Reddit travel reviews; developed data collection, cleaning, and preprocessing workflows and studied user-modeling approaches.

PUBLICATION

- E. Lee, J. Kim, J. Chung, G. Lim, and J. Paik. "Domain Adaptation-Driven Single Domain Generalization for Thermal UAV-Based Missing Person Detection." 2026 IEIE Summer Conference, 2026. Presented; second author.

CERTIFICATIONS, AWARDS & LEADERSHIP

- ADsP - Korea Data Agency (Feb 2026) | SQLD - Korea Data Agency (May 2026) | Korean: Native | English: TOEFL iBT 94
- 2nd Place, Signature Competition | Honorable Mention, SUMTECH Hackathon | Excellence Award, Fintech Service Planning Competition (2025)
- Department Representative, Software Engineering (2025) | International Student Mentor (Mar-Jun 2026) | Coding Instructor, CodingFun Academy (Jan-Apr 2026) | Team Leader, DB Insurance Financial Competition (Jan-Feb 2026)