

JunGyu Lee

Ph.D. Student, Artificial Intelligence

Graduate School of Artificial Intelligence, Yonsei University

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RESEARCH INTERESTS

Crowd Generation, Social Robot Navigation, World Models

EDUCATION

- **Ph.D. in Engineering, Artificial Intelligence**

Yonsei University, Seoul, Korea

Advisor: Prof. Hae-Gon Jeon · Visual AI Lab

- **M.S. in AI Robotics**

University of Science and Technology (UST), Korea Institute of Science and Technology (KIST) School

Advisor: Prof. Gi Pyo Nam · Visual Intelligence Group (VIG)

- **B.S. in Big Data Analytics**

Kookmin University, Seoul, Korea

EXPERIENCE

- **AI Researcher**

Seoul National University Hospital (SNUH)

Jun 2025 – Nov 2025

- **AI Researcher**

Korea Institute of Science and Technology (KIST)

Jan 2023 – Jun 2025

- **Research Internship**

Asan Medical Center (AMC)

Aug 2021 – Nov 2021

PUBLICATIONS

* denotes equal contribution

Under Review

JunGyu Lee, Jisu Shin, Seunghyun Shin, Hae-Gon Jeon

Controllable Crowd Generation through World-Model Planning

arXiv preprint arXiv:2610.09438, 2026 (Under review)

[Project](#) · [arXiv](#) · [Code](#)

JunGyu Lee, Inhwon Bae, Hae-Gon Jeon

Revisiting Numerical Forecasting Models for Language-Based Trajectory Prediction

arXiv preprint arXiv:2610.07954, 2026 (Under review)

[Project](#) · [arXiv](#) · [Code](#)

Sang-Hun Han, Changyeon Won, **JunGyu Lee**, Min-Gyu Park, Hae-Gon Jeon

IORA: Irregular Object Immobilization under Restricted Actuation

arXiv preprint arXiv:2610.30969, 2026 (Under review)

[Project](#) · [arXiv](#)

Boa Jang*, **JunGyu Lee***, Gwanho Lee, Jinwook Choi, Young-Gon Kim

Skeleton-Guided Progressive Test-Time Adaptation for Thin Curvilinear Structures

arXiv preprint arXiv:2610.11104, 2026 (Under review)

[Project](#) · [arXiv](#) · [Code](#)

2026

Jisu Shin, Junoh Lee, **JunGyu Lee**, Inhwon Bae, Dohyeon Lee, Hokyun Im, Youngwoon Lee, Hae-Gon Jeon

ComPose: When to Trust Hands for Object Pose Tracking

NeurIPS 2026 — Conference on Neural Information Processing Systems (NeurIPS)

[Project](#) · [arXiv](#)

Dong Yeong Kim*, **JunGyu Lee***, Jaewon Choi, June Young Seo, Myeongseop Kim, Jinwook Choi, Taek Min Kim, Young-Gon Kim

Distilling Temporal Coherence into 2D Networks for TRUS Prostate Video Segmentation

MICCAI 2026 — Proceedings of the International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI)

[Project](#) · [Paper](#) · [arXiv](#) · [Code](#)

Dong Yeong Kim, Jaewon Choi, Youmin Shin, **JunGyu Lee**, Myeongseop Kim, Jinwook Choi, Joo Whan Kim, Young-Gon Kim

PSCT-Net: Geometry-Aware Pediatric Skull CT Reconstruction via Differentiable Back-Projection and Attention-Guided Refinement

MICCAIW 2026 — Proceedings of the International Conference on Medical Image Computing and Computer-Assisted Intervention Workshop (MICCAIW)

[Project](#) · [Paper](#) · [arXiv](#) · [Code](#)

2025

JunGyu Lee, Kunyoung Lee, Haesol Park, Ig-Jae Kim, Gi Pyo Nam

V-NAW: Video-based Noise-aware Adaptive Weighting for Facial Expression Recognition

CVPRW 2025 — Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshop (CVPRW)

[Project](#) · [Paper](#) · [arXiv](#) · [Code](#)

JunGyu Lee*, Yeji Choi*, Haksob Kim, Ig-Jae Kim, Gi Pyo Nam

Navigating Label Ambiguity for Facial Expression Recognition in the Wild

AAAI 2025 — Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)

[Project](#) · [Paper](#) · [arXiv](#) · [Code](#)

2024

JunGyu Lee, Sanghyun Alex Lee, Gi Pyo Nam

Study on Facial Composite Feature Analysis for Determining Subject Anxiety Levels on Low-Power Computing Modules

IEIE 2024 — Summer Annual Conference of IEIE

[Project](#) · [Paper](#) · [Code](#)

HONORS & AWARDS

• Top 5 Placement, 8th ABAW Competition @ CVPR Workshop

2025

• Best Paper Award, KIST Convergence Conference

Korea Institute of Science and Technology (KIST)

2024

• Outstanding Technology Award, AI-Robotics Research Division

Korea Institute of Science and Technology (KIST)

2024

SELECTED PROJECTS

• Expression Recognition App

PyQt-based facial expression recognition from images, videos, or real-time webcam

• Realtime FER / VA Estimation / Eye Blink Detection / Face Detector

Real-time facial analysis pipelines for expression, affect, and behavioral monitoring

MEDIA

• AI, Reading Inner Feelings

Chosun Ilbo · Jul 2023 · [Article](#)

• On-site Verification: Drugs, from Inflow to Distribution — Can They Be Stopped?

MBC Newsdesk · May 2023 · [Video](#)

• Customs' Cutting-Edge Detection Technology on the Front Line of the 'War on Drugs'

JTBC News (D:Issue) · Apr 2023 · [Video](#)