

Jaewoo Jeong

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EDUCATION

- 23.03 – Present **Korea Advanced Institute of Science and Technology (KAIST)**
Doctoral Candidate, Mechanical Engineering
Advisor: Prof. Kuk-Jin Yoon
- 21.03 – 23.02 **Korea Advanced Institute of Science and Technology (KAIST)**
M.S., Mechanical Engineering (GPA 4.01 / 4.30)
Advisor: Prof. Jungchul Lee
Thesis: Computer vision-based analysis for high temperature annealing and dropwise condensation
- 19.05 – 20.12 **KATUSA, Republic of Korea Army**
19 months of mandatory military service
- 15.09 – 18.12 **University of Minnesota–Twin Cities**
B.S., Mechanical Engineering (GPA 3.75 / 4.00)
Dean's List: 2015 Fall, 2016 Spring, 2017 Spring, 2017 Fall, 2018 Spring

RESEARCH INTERESTS

Motion Understanding, Prediction, and Planning

PUBLICATIONS

★ *Highlight* * *Equal contribution*

Motion understanding

- Preprint Gaze-hand Trajectory Merging for Efficient Egocentric Video Understanding
J. Jeong*, M. Kim*, Y. Bae*, K. Yoon

Motion prediction

- Preprint SRA: Spatial Reasoning Adapter via Evolving Social Interaction Graphs for Trajectory Prediction
J. Jeong*, S. Song*, H. Park, J. Cho, Y. Bae, G. Lee, D. Park, K. Yoon
- ECCV 2026 Ego-Human Motion Prediction with 3D-Aware LLM [Code] [Project]
Y. Bae*, J. Jeong*, H. Kim*, K. Yoon
- CVPR 2025 Multi-modal Knowledge Distillation-based Human Trajectory Forecasting [Code]
J. Jeong, S. Lee, D. Park, G. Lee, K. Yoon
- CVPR 2024 Multi-agent Long-term 3D Human Pose Forecasting via Interaction-aware Trajectory Conditioning [Code] [Project] ★ **Highlight**
J. Jeong*, D. Park*, K. Yoon
- CVPR 2024 T4P: Test-Time Training of Trajectory Prediction via Masked Autoencoder and Actor-specific Token Memory [Code]
D. Park, J. Jeong, S. Yoon, J. Jeong, K. Yoon
- AAAI 2024 Improving Transferability for Cross-domain Trajectory Prediction via Neural Stochastic Differential Equation [Code]
D. Park, J. Jeong, K. Yoon

Motion planning

- ICCV 2025 Interaction-Merged Motion Planning: Effectively Leveraging Diverse Motion Datasets for Robust Planning ★ **Highlight**
G. Lee*, W. Jeong*, D. Park, J. Jeong, K. Yoon
- IROS 2025 Non-differentiable Reward Optimization for Diffusion-based Autonomous Motion Planning
G. Lee*, D. Park*, J. Jeong*, K. Yoon

Computer vision for manufacturing

- 2026 Analysis of Multiscale Condensation Phenomena Using a Zero-Shot Computer Vision Framework *Advanced Science*
D. Lee, S. Roh, J. Jeong, K. Yoon, J. Lee, Y. Nam
- 2023 Near-infrared inspection and machine learning-based prediction for semiconductor membrane cavity structures *IEEE-NEMS*
M. G. Jeong, J. Jeong, T. Kim, B. J. Lee, J. Lee
- 2022 Predicting AFM topography from optical microscopes using deep-learning *Advanced Intelligent Systems*
J. Jeong, T. Kim, B. J. Lee, J. Lee
- 2022 Simulation of Germanium-on-Nothing cavity's morphological transformation using deep learning *Micro and Nano Systems Letters*
J. Jeong, T. Kim, J. Lee
- 2022 PCA-based sub-surface structure and defect analysis for Germanium-on-Nothing using nanoscale surface topography *Scientific Reports*
J. Jeong, T. Kim, B. J. Lee, J. Lee
- 2021 Cellular and biomolecular detection based on suspended microchannel resonators *Biomedical Engineering Letters*
J. Ko, J. Jeong, S. Son, J. Lee
- 2018 3D Printed Polymer Photodetectors *Advanced Materials*
S. H. Park, R. Su, J. Jeong, S. Z. Guo, K. Qiu, D. Joung, F. Meng, M. C. McAlpine

AWARDS & HONORS

- 25.11 **Finalist**, Qualcomm Innovation Fellowship Korea
Interaction-Merged Motion Planning: Effectively Leveraging Diverse Motion Datasets for Robust Planning
- 24.12 **Awardee**, Qualcomm Innovation Fellowship Korea
Multi-agent Long-term 3D Human Pose Forecasting via Interaction-aware Trajectory Conditioning
- 22.06 **1st Place**, KAIST-UNIST Quantitative Investment Competition
Slim timeframe momentum investing with statistical augmentation [Code]
- 21.11 **Outstanding Paper Award**, Micro Nano Systems Conference
J. Jeong, T. Kim, B. J. Lee, J. Lee
- 21.11 **Bronze Award**, KSME-SEMES Open Innovation Challenge
J. Lee, M. G. Jeong, T. Kim, J. Jeong, B. J. Lee
- 17.06 – 17.08 **UROP Scholarship**, University of Minnesota
Advisor: Prof. Michael McAlpine — 3D printing polymer photodetectors
- 15.09 – 18.12 **Global Maroon Scholarship**, University of Minnesota

TEACHING EXPERIENCE

- 25.3, 25.9 **Teaching Assistant** — ME 40059: Introduction to Computer Vision
Dept. of Mechanical Engineering, KAIST
- 22.1, 23.1 **Teaching Assistant** — Korean Camp
School of Digital Humanities and Computational Social Sciences, KAIST

ACADEMIC SERVICE

- Reviewer 2024: IEEE Internet of Things Journal
2025: ICCV, IROS, NeurIPS, TPAMI
2026: AAAI, CVPR, ECCV, NeurIPS

SKILLS

Programming	C, C++, Python
Frameworks	PyTorch
Languages	Korean (Native), English (Native)

LEADERSHIP

26.01 – 26.12	Lab Representative, ViLAB @ KAIST
15.12 – 18.12	Captain, FC Green @ UMN-TC
15.09 – 16.12	Board Member, Korean-American Scientists and Engineers Association (KSEA) @ UMN-TC