

Jaewoo Jeong

Vocational Timeline

- 23.03 – **Korea Advanced Institute of Science and Technology,**
Doctoral Candidate in Mechanical Engineering.
Advisor: Prof. Kuk-Jin Yoon
- 21.03 – 23.02 **Korea Advanced Institute of Science and Technology,**
Masters of Science in 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**
-Served the Korean army for 19 months as a mandatory service
- 15.09 – 18.12 **University of Minnesota-Twin Cities,**
Bachelor of Mechanical Engineering, GPA – 3.75/4.00
Dean's list: 2015 Fall, 2016 Spring, 2017 Spring, 2017 Fall, 2018 Spring.

Research Area

- ◆ Motion Understanding, Prediction, and Planning

Publications

Motion understanding

Preprint Ego-Human Motion Prediction with 3D-Aware LLM
Y. Bae*, **J. Jeong***, H. Kim*, K. Yoon
* denotes equal contribution

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

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
* denotes equal contribution

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
★ Highlight Trajectory Conditioning / [Code](#), [Project Page](#)
J. Jeong*, D. Park*, K. Yoon
* denotes equal contribution

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
★ Highlight Datasets for Robust Planning
G. Lee*, W. Jeong*, D. Park, **J. Jeong**, K. Yoon
* denotes equal contribution

IROS 2025 Non-differentiable Reward Optimization for Diffusion-based Autonomous Motion
Planning
G. Lee*, D. Park*, **J. Jeong***, K. Yoon
* denotes equal contribution

Computer vision for manufacturing

2026 Analysis of Multiscale Condensation Phenomena Using a Zero-Shot Computer
Vision Framework
D. Lee, S. Roh, **J. Jeong**, K. Yoon, J. Lee, and Y. Nam
Advanced Science

2023 Near-infrared inspection and machine learning-based prediction for semiconductor
membrane cavity structures
M. G. Jeong, **J. Jeong**, T. Kim, B. J. Lee and J. Lee
IEEE-Nano/Micro Engineered and Molecular Systems

2022 Predicting AFM topography from optical microscopes using deep-learning
J. Jeong, T. Kim, B. J. Lee, J. Lee.
Advanced Intelligent Systems

2022 Simulation of Germanium-on-Nothing cavity' s morphological transformation using
deep learning
J. Jeong, T. Kim, J. Lee.
Micro and Nano Systems Letters

2022 PCA-based sub-surface structure and defect analysis for Germanium-on-Nothing
using nanoscale surface topography
J. Jeong, T. Kim, B. J. Lee, J. Lee.
Scientific Reports

2021 Cellular and biomolecular detection based on suspended microchannel resonators
J. Ko, **J. Jeong**, S. Son, J. Lee.
Biomedical Engineering Letters

2018 3D Printed Polymer Photodetectors
S.H. Park, R. Su, **J. Jeong**, S. Z. Guo K. Qiu, D. Joung, F. Meng, M. C. McAlpine.
Advanced Materials

Awards

- 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 Languages

C, C++, Python

Deep Learning Frameworks

PyTorch

Languages

Korean (Native), English (Native)

— Extracurricular Activities

- 22.3 – 22.12 Vocalist, HUG @ KAIST
- 16.09 – 17.09 Vocalist, Sentimental Sounds @ UMNTC
- 15.12 – 18.12 Captain, FC Green @ UMNTC
- 15.09 – 16.12 Board Member, Korean-American Scientists and Engineers Association (KSEA) @ UMNTC