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# 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 Prediction and Planning
- ◆ Multi-modal LLM

# Publications (Computer Vision)

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

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

# Publications (Manufacturing)

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

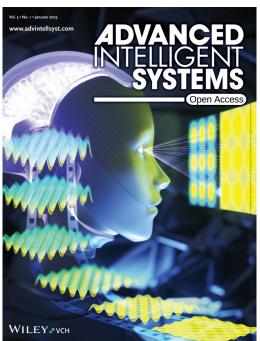
IEEE-Nano/Micro Engineered and Molecular Systems

2022 Predicting AFM topography from optical microscopes using deep-learning

J. Jeong, T. Kim, B. J. Lee, J. Lee.

Advanced Intelligent Systems, 5, 2200317, IF 7.4.

- Selected as inside back cover
- Featured in multiple medias, including YTN Science Today



- 2022 Simulation of Germanium-on-Nothing cavity's morphological transformation using deep learning
  - **J. Jeong**, T. Kim, J. Lee.

Micro and Nano Systems Letters 10, 22. IF 3.6

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 12, 7205. IF 4.6

- 2021 Cellular and biomolecular detection based on suspended microchannel resonators J. Ko, **J. Jeong**, S. Son, J. Lee.
  - Biomedical Engineering Letters 11, 367–382. IF 4.6
- 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 30, 1803980. IF 29.4

## Awards

- 24.12 **Awardee**, Qualcomm Innovation Fellowship Korea.
- 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 **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, AAAI

## Skils

## **Programming Languages**

C, C++, Python

## **Deep Learning Frameworks**

PyTorch

#### Languages

Korean (Native), English (Native)