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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

- Human Motion Prediction and Generation
- Multi-modal LLM

Publications (Computer Vision)

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

4. Multi-modal Knowledge Distillation-based Human Trajectory Forecasting / Code
J. Jeong, S. Lee, D. Park, G. Lee, K. Yoon / **CVPR 2025**

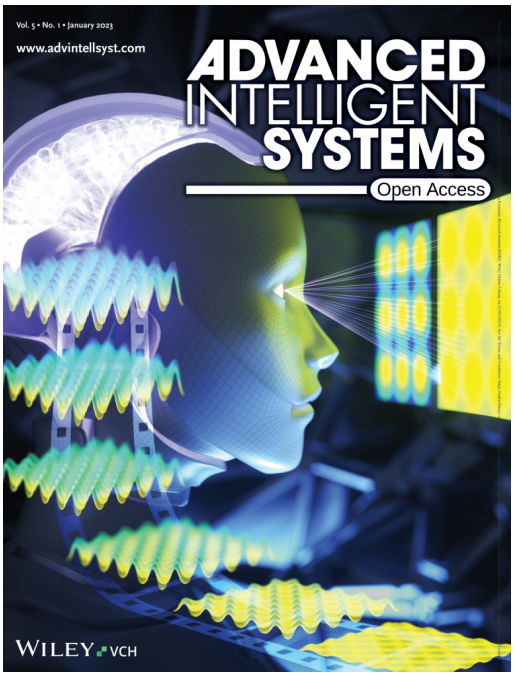
3. Multi-agent Long-term 3D Human Pose Forecasting via Interaction-aware Trajectory Conditioning / Code, Project Page
J. Jeong*, D. Park*, K. Yoon / **CVPR 2024 Highlight (2.8% of submitted)**
* denotes equal contribution

2. 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 / **CVPR 2024**

1. Improving Transferability for Cross-domain Trajectory Prediction via Neural Stochastic Differential Equation / Code
   D. Park, **J. Jeong**, K. Yoon / **AAAI 2024**

Publications (Manufacturing)

6. 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 / **NEMS 2023**
5. Predicting AFM topography from optical microscopes using deep-learning
   J. Jeong, T. Kim, B. J. Lee, J. Lee.
   Advanced Intelligent Systems, 5, 2200317 (2022), **IF 7.4**.
   - Selected as inside back cover
   - Featured in multiple medias, including YTN Science Today



4. 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 (2022). **IF 3.6**
3. 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 (2022). **IF 4.6**
2. Cellular and biomolecular detection based on suspended microchannel resonators
   J. Ko, **J. Jeong,**, S. Son, J. Lee.
   Biomedical Engineering Letters 11, 367–382 (2021). **IF 4.6**

1. 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 (2018). **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

Skils

Programming Languages
C, C++, Python

Deep Learning Frameworks
PyTorch

Languages
Korean (Native), English (Native)