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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)

- 2025 Interaction-Merged Motion Planning: Effectively Leveraging Diverse Motion Datasets for Robust Planning
 G. Lee*, W. Jeong*, D. Park, J. Jeong, K. Yoon / ICCV
 * denotes equal contribution
- 2025 Non-differentiable Reward Optimization for Diffusion-based Autonomous Motion Planning
 G. Lee*, D. Park*, J. Jeong*, K. Yoon / IROS
 * denotes equal contribution
- 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 Page
 J. Jeong*, D. Park*, K. Yoon / CVPR Highlight (2.8% of submitted)
 * denotes equal contribution

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

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 / NEMS

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

Skils

Programming Languages C, C++, Python

Deep Learning Frameworks PyTorch

Languages Korean (Native), English (Native)