DONGKEUN KIM

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RESEARCH INTERESTS

Computer Vision, Video Understanding, Group Activity Understanding, Robotics

WORK EXPERIENCES

Postdoctoral Researcher at **Computer Vision Laboratory, POSTECH**   Aug. 2025 ∼ current
Pohang, Republic of Korea
This position is supported by the **BK21 Four**, funded by the Ministry of Education of Korea and National Research
Foundation of Korea. It has been carried out in the group of Prof. Suha Kwak.
Research Topic: Learning from Human Videos for Robotic Manipulation

Lecturer at **POSTECH**   Aug. 2025 ∼ current
Pohang, Republic of Korea
Problem Solving Practice and Application (2025 Fall)

Researcher at **Computer Vision Laboratory, POSTECH**   Sep. 2018 ∼ Jan. 2019
Pohang, Republic of Korea
Advisor: Suha Kwak
Research Topic: Medical Image Analysis

Lecturer at **Hanbat National University**   Mar. 2018 ∼ Dec. 2018
Daejeon, Republic of Korea
Artificial Intelligence (2018 Spring), Advanced Machine Learning (2018 Fall)

Developer at **SIMNET**   Feb. 2015 ∼ Feb. 2018
Daejeon, Republic of Korea
Conducted research on computer vision application to defense industry and developed intelligent combat simulator.

EDUCATION

Pohang University of Science and Technology (POSTECH)   Feb. 2019 ∼ Aug. 2025
Ph.D. in Computer Science and Engineering
Advisor: Suha Kwak
Thesis: *Compositional Reasoning Approaches to Group Activity Understanding*
GPA: 4.0 / 4.3

Carnegie Mellon University (CMU)   Aug. 2019 ∼ Feb. 2020
Visiting student in Language Technologies Institute
IITP (Institute of Information & Communications Technology Planning & Evaluation) Executive Education Program

Korea Advanced Institute of Science and Technology (KAIST)   Mar. 2013 ∼ Feb. 2015
M.S. in Industrial & Systems Engineering
Advisor: Kyung Chul Chae
Thesis: A Monte Carlo Simulation approach to the Discrete-Time Jackson Network
GPA: 3.74 / 4.3

Korea Advanced Institute of Science and Technology (KAIST)   Feb. 2008 ∼ Feb. 2013
B.S. in Biological Science
B.S. in Industrial & Systems Engineering (Dual Major)
GPA: 3.64 / 4.3
Magna Cum Laude

PUBLICATIONS

International Conferences

1. **Dongkeun Kim**, Minsu Cho, Suha Kwak, "Part-Aware Bottom-Up Group Reasoning for Fine-Grained Social Interaction Detection", Advances in Neural Information Processing Systems (**NeurIPS**) 2025.

2. Youngkil Song*, **Dongkeun Kim***, Minsu Cho, Suha Kwak, "Online Temporal Action Localization with Memory-Augmented Transformer", European Conference on Computer Vision (**ECCV**) 2024.

3. **Dongkeun Kim**, Youngkil Song, Minsu Cho, Suha Kwak, "Towards More Practical Group Activity Detection: A New Benchmark and Model", European Conference on Computer Vision (**ECCV**) 2024.

4. **Dongkeun Kim**, Jinsung Lee, Minsu Cho, Suha Kwak, "Detector-Free Weakly Supervised Group Activity Recognition", Proc. IEEE Computer Vision and Pattern Recognition (**CVPR**) 2022.

5. Minkyo Seo, **Dongkeun Kim**, Kyungmoon Lee, Seunghoon Hong, Jae Seok Bae, Jun Hoon Kim, Suha Kwak, "Neural Contrast Enhancement of CT Image", Proc. IEEE Winter Conference on Applications of Computer Vision (**WACV**) 2021.

Domestic Conferences

1. **Dongkeun Kim**, Dae-Eun Lim, "Modeling the Operation of Finite Capacitated Lifters in Semiconductor Fabrication Facilities", Korean Institute of Industrial Engineering (KIIE) & The Korean Operations Research and Management Science Society (KORMS) Joint Spring Conference 2014.

2. Dae-Eun Lim, **Dongkeun Kim**, "Modeling the Operation of a Lifter in a Semiconductor Fabrication Facility using Queueing Models", Fall Conference of The Korea Society for Simulation 2013.

PROJECTS

Robot AGI   Aug. 2025 ∼ current
IITP, South Korea
Conducted research on learning from human videos for robotic manipulation.

Self-directed Visual Intelligence   Apr. 2022 ∼ Dec. 2024
IITP, South Korea
Supported technical reports and documentation.

Data Voucher   Jun. 2021 ∼ Nov. 2021
K data, South Korea
Constructed Café dataset.

Cloud Robot   Apr. 2020 ∼ Dec. 2023
IITP, South Korea
Conducted research on group activity recognition and detection.

HONORS AND AWARDS

BK21 outstanding paper award,   2023

National Scholarship for Science and Engineering, Korea Student Aid Foundation, 2008 ∼ 2011, 2013 ∼ 2014

REVIEWING SERVICES

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR): 2024, 2025
- European Conference on Computer Vision (ECCV): 2024
- IEEE/CVF International Conference on Computer Vision (ICCV): 2023, 2025
- IEEE/CVF Winter Conference on Applications of Computer Vision (WACV): 2022-2025

- Asian Conference on Computer Vision (ACCV): 2022, 2024
- IEEE Transactions on Multimedia
- Images and Vision Computing

TEACHING EXPERIENCES

• Lecturer, Problem Solving Practice and Applications, POSTECH	2025 Fall
• Teaching Assistant, Discrete Math for Computer Science, POSTECH	2021 Spring, 2022 Spring
• Lecturer, Advanced Machine Learning, Hanbat National University	2018 Fall
• Lecturer, Artificial Intelligence, Hanbat National University	2018 Spring
• Teaching Assistant, Queueing Theory, KAIST	2014 Fall
• Teaching Assistant, Stochastic Modeling I, KAIST	2014 Spring
• Teaching Assistant, Manufacturing Process Innovation, KAIST	2013 Fall
• Tutor, Operations Research II, KAIST	2013 Spring

EXTRA-CURRICULAR ACTIVITIES

elice.io 2015 Machine Learning Summer Camp   Aug. 2015
Participant