Donghyeon Kwon

kinux98@postech.ac.kr | https://kinux98.github.io

Chungam-Ro 77, POSTECH, Pohang-Si, Republic of Korea (37673)

Research Objective

My research advances the frontiers of computer vision through effective approaches to data-efficient learning. I have developed novel methodologies that significantly reduce annotation requirements while achieving state-of-the-art performance across diverse domains—from 3D object detection and semantic segmentation to video understanding and cross-modal knowledge transfer. Specifically, my research experience includes:

- Semi-supervised learning for dense visual understanding.
- Cross-modal knowledge distillation for 3D object detection.
- Self-supervised learning using a vast amount of web videos.

Education

POSTECH Feb. 2021 – Feb. 2026

Integrated M.S. and Ph.D. in Computer Science and Engineering;

- Supervised by Prof. Suha Kwak in the Computer Vision Lab.
- Research interest: Computer vision, data-efficient learning, self-supervised learning, knowledge distillation

POSTECH Feb. 2017 – Feb. 2021

B.S. in Computer Science and Engineering

Publications

[1] **MemDistill: Distilling LiDAR Knowledge into Memory for Camera-Only 3D Object Detection** Oct. 2025

Donghyeon Kwon, Youngseok Yoon, Hyeongseok Son and Suha Kwak
IEEE/CVF International Conference on Computer Vision (ICCV)

[2] **Decoupled Finetuning for Domain Generalizable Semantic Segmentation** Apr. 2025

Jaehyun Pahk, **Donghyeon Kwon**, Seong Joon Oh and Suha Kwak
The Thirteenth International Conference on Learning Representations (ICLR)

[3] **Boosting Semi-supervised Video Action Detection with Temporal Context** Feb. 2025

Donghyeon Kwon, Inho Kim and Suha Kwak
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), **Oral Presentation**

[4] **Self-supervised Learning of Semantic Correspondence Using Web Videos** Jan. 2024

Donghyeon Kwon, Minsu Cho and Suha Kwak
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)

[5] **Leveraging Proxy of Training Data for Test-Time Adaptation** July. 2023

Juwon Kang, Nayeong Kim, **Donghyeon kwon**, Jungseul Ok and Suha Kwak
International Conference on Machine Learning (ICML)

[6] **Semi-supervised Semantic Segmentation with Error Localization Network** June 2022

Donghyeon kwon, and Suha Kwak
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)

Experience

Research Intern, **Samsung Advanced Institute of Technology** July 2023 – Aug. 2023

- Mentor: Dr. **Hyeongseok Son**
- Development of a LiDAR-to-Camera Knowledge Distillation Method for 3D Object Detection

Research Assistant, **Korea Institute of Science and Technology** June 2019 – Aug. 2019

- Advisor: Dr. **Suhyun Kim**
- Development of AI-powered typo correction for virtual keyboards

Professional Services

Reviewer, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR): 2023-2025
Reviewer, IEEE/CVF International Conference on Computer Vision (ICCV): 2023, 2025
Reviewer, European Conference on Computer Vision (ECCV): 2024
Reviewer, Conference on Neural Information Processing Systems (NeurIPS): 2023
Reviewer, International Conference on Learning Representations (ICLR): 2024-2025
Reviewer, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI): 2025

Awards & Achievements

Outstanding Reviewer, ICCV 2025, 2025
BK21 Best Paper Award, POSTECH CSE, 2023

- Semi-supervised Semantic Segmentation with Error Localization Network (CVPR 2022)

Jigok Scholarship, POSTECH, 2017-2020