Hyeokjun Kweon

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Education

2020–present Ph.dc., Mechanical Engineering, Korea Advance Institute of Science and Technology (KAIST)

2018–2020 M.Sc., Mechanical Engineering, Korea Advance Institute of Science and Technology (KAIST)

2014–2018 B.Sc., Mechanical Engineering, Korea Advance Institute of Science and Technology (KAIST)

Research Publications **(* denotes equal contribution.)**

[ECCV 2024] Hoonhee Cho*, Sung-Hoon Yoon*, **Hyeokjun Kweon***, and Kuk-Jin Yoon. Finding Meaning in Points: Weakly Supervised Semantic Segmentation for Event Cameras

[CVPR 2024] **Hyeokjun Kweon** and Kuk-Jin Yoon. From SAM to CAMs: Exploring Segment Anything Model for Weakly Supervised Semantic Segmentation **(Oral, top 3.3% of accepted)**

[CVPR 2024] **Hyeokjun Kweon***, Jihun Kim*, and Kuk-Jin Yoon. Weakly Supervised Point Cloud Semantic Segmentation via Artificial Oracle

[ICCV 2023] Jihun Kim, **Hyeokjun Kweon**, Yunseo Yang, and Kuk-Jin Yoon. Learning Point Cloud Completion without Complete Point Clouds: A Pose-aware Approach

[CVPR 2023] **Hyeokjun Kweon***, Sung-Hoon Yoon*, and Kuk-Jin Yoon. Weakly Supervised Semantic Segmentation via Adversarial Learning of Classifier and Reconstructor.

[AAAI 2023] **Hyeokjun Kweon***, Hyeonseong Kim*, Yoonsu Kang*, Youngho Yoon*, Wooseong Jeong, and Kuk-Jin Yoon. Pixel-wise Warping for Deep Image Stitching.

[NeurIPS 2022] **Hyeokjun Kweon** and Kuk-Jin Yoon. Joint Learning of 2D-3D Weakly Supervised Semantic Segmentation.

[ECCV 2022] Sung-Hoon Yoon*, **Hyeokjun Kweon***, Je-Gyeong Cho, Shin-Jeong Kim, and Kuk-Jin Yoon. Adversarial Erasing Framework via Triplet with Gated Pyramid Pooling Layer for Weakly Supervised Semantic Segmentation.

[ICCV 2021] **Hyeokjun Kweon***, Sung-Hoon Yoon*, Hyeonseong Kim, Daehee Park, and Kuk-Jin Yoon. Unlocking the Potential of Ordinary Classifier: Class-specific Adversarial Erasing Framework for Weakly Supervised Semantic Segmentation.

Projects

2020–present Unmanned Swarm CPS Research Laboratory Program of Defense Acquisition Program (drone imaging, image stitching, 3D reconstruction, and point cloud semantic segmentation)

2021–2023 AI Research for Intelligent X-ray Luggage Scanning System (X-ray imaging, object detection, weakly supervised object localization)

2021–2022 Development of Situational Awareness System to Prevent Collisions and Accidents for Autonomous Ships (semantic segmentation, object detection)

Selected Honors and Awards

Reviewer of Top-tier Conferences: CVPR, ICCV, ECCV, NeurIPS, ICLR, ICML, AAAI

Reviewer of Top-tier Journals: TPAMI, IJCV, CVIU

2023 Bronze prize in Samsung HumanTech Paper Awards 2023

2023 Bronze prize in Best Paper Awards during IPIU 2023, 35th Workshop on Image Processing and Image Understanding

2022 Gold prize in Best Paper Awards during IPIU 2022, 34th Workshop on Image Processing and Image Understanding

2021 Winning CVPRW 2021 DSEC challenge (event-only track)

Skills

Programming Languages: **Python**, MATLAB, C/C++/C#, GLSL

Tools: **PyTorch**, **PyTorch3D**, TensorFlow, Open3D, OpenGL, Blender, Unity3D

Languages: Korean and English (TOEFL IBT 104/120, TOEIC 955/990)