

Hyeokjun Kweon

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Education

- 2020–present Ph.d., 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

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