

Hyeokjun Kweon (권혁준)

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Education

- 2020–present Ph.D., Mechanical Engineering, Korea Advance Institute of Science and Technology (KAIST, supervised by Kuk-Jin Yoon)
- 2018–2020 M.S., Mechanical Engineering, Korea Advance Institute of Science and Technology (KAIST, supervised by Doo Yong Lee)
- 2014–2018 B.S., Mechanical Engineering, Korea Advance Institute of Science and Technology (KAIST)

Research Publications

- [**NeurIPS 2024**] Hyun-Kurl Jang*, Jihun Kim*, **Hyeokjun Kweon***, and Kuk-Jin Yoon. TALoS: Enhancing Semantic Scene Completion via Test-time Adaptation on the Line of Sight
- [**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, Oral**] **Hyeokjun Kweon** and Kuk-Jin Yoon. From SAM to CAMs: Exploring Segment Anything Model for Weakly Supervised Semantic Segmentation (**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 (About drone imaging, image stitching, 3D reconstruction, and point cloud semantic segmentation)
- 2021–2023 AI Research for Intelligent X-ray Luggage Scanning System (About X-ray imaging, object detection, weakly supervised object localization)
- 2021–2022 Development of Situational Awareness System to Prevent Collisions and Accidents for Autonomous Ships (About 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, RA-L

- 2024 Qualcomm Innovation Fellowship 2024 Korea Winner (Top 15 papers)
- 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)