

Interests

Computer vision and machine learning, and their application to autonomous driving:

Robust Perception: To design perception models that can effectively handle challenges such as occlusions, domain shifts, unseen categories, and other uncertainties.

Label-Efficient Learning: To develop advanced (pseudo-)labeling algorithms to minimize the need for human annotation costs.

Multi-Modal & Multi-Agent Framework: To utilize LLMs and collaborative learning to enhance the understanding of complex environments.

Education

The Ohio State University, Columbus, OH 2023 – present

Ph.D. in Computer Science & Engineering, advised by Wei-Lun (Harry) Chao

Hanyang University, Seoul, Korea 2020 – 2022

M.S. in Artificial Intelligence, advised by Tae Hyun Kim

Hanyang University, Seoul, Korea 2014 – 2020

B.S. in Computer Science & Engineering, *summa cum laude*

Mandatory military service in the Republic of Korea Air Force (2015 – 2017)

Publications

* denotes equal contribution. More information can be found on [Google Scholar](#).

Peer-Reviewed Conference/Journal Papers:

Learning 3D Perception from Others' Predictions

[Jinsu Yoo](#), Zhenyang Feng, Tai-Yu Pan, Yihong Sun, Cheng Perng Phoo, Xiangyu Chen, Mark Campbell, Kilian Q Weinberger, Bharath Hariharan, Wei-Lun Chao

International Conference on Learning Representations (ICLR), 2025. [link](#)

Looking Beyond Input Frames: Self-Supervised Adaptation for Video Super-Resolution

[Jinsu Yoo](#), Jihoon Nam, Sungyong Baik, Tae Hyun Kim

Pattern Recognition (PR), 2024. [link](#)

Semantic-Aware Dynamic Parameter for Video Inpainting Transformer

Eunhye Lee*, [Jinsu Yoo](#)*, Yunjeong Yang, Sungyong Baik, Tae Hyun Kim

International Conference on Computer Vision (ICCV), 2023. [link](#)

Enriched CNN-Transformer Feature Aggregation Networks for Super-Resolution

[Jinsu Yoo](#), Taehoon Kim, Sihaeng Lee, Seung Hwan Kim, Honglak Lee, Tae Hyun Kim

Winter Conference on Applications of Computer Vision (WACV), 2023. [link](#)

Fully Convolutional Transformer with Local-Global Attention

Sihaeng Lee*, Eojindl Yi*, Janghyeon Lee, [Jinsu Yoo](#), Honglak Lee, Seung Hwan Kim
International Conference on Intelligent Robots and Systems (IROS), 2022. [link](#)

Fast Adaptation to Super-Resolution Networks via Meta-Learning
Seobin Park*, [Jinsu Yoo](#)*, Donghyeon Cho, Jiwon Kim, Tae Hyun Kim
European Conference on Computer Vision (ECCV), 2020. [link](#)

Preprints:

Static Segmentation by Tracking: A Frustratingly Label-Efficient Approach to Fine-Grained Segmentation
Zhenyang Feng, ..., [Jinsu Yoo](#), ..., Wei-Lun Chao (25 authors)
in submission; arXiv preprint, 2025. [link](#)

An Exploratory Journey in Extremely Sparse LiDAR-Guided Stereo Through the Lens of Depth Pre-Fill
[Jinsu Yoo](#), Sooyoung Jeon, Tai-Yu Pan, Wei-Lun Chao
in submission, 2025. (to appear on arXiv soon)

Transfer Your Perspective: Controllable 3D Generation from Any Viewpoint in a Driving Scene
Tai-Yu Pan, Sooyoung Jeon, Mengdi Fan, [Jinsu Yoo](#), Zhenyang Feng, Mark Campbell, Kilian Q Weinberger,
Bharath Hariharan, Wei-Lun Chao
in submission, 2025. (to appear on arXiv soon)

Experience

The Ohio State University, Columbus, OH 2023 – present

Research Assistant, Machine Learning as the Basis (MLB) Lab

- Working on robust 3D perception for autonomous driving.

Hanyang University, Seoul, Korea 2020 – 2022

Research Assistant, Visual Intelligence Lab

- Proposed video inpainting method that can leverage given video's semantic cues. [ICCV'23]
- Developed self-supervised test-time adaptation methods for super-resolution. [ECCV'20, PR'24]

LG AI Research, Seoul, Korea Fall 2021

Research Intern, Vision Lab

- Proposed effective CNN-transformer aggregation method for image restoration. [WACV'23]
- Provided the initial idea of flexible local-and-global attention mechanism. [IROS'22]

Seoul National University, Seoul, Korea Spring 2020

Research Intern, Vision and Learning Lab

- Improved imbalanced image classification accuracy by utilizing transfer learning.

University of California, Irvine, Irvine, CA Winter 2017

Visiting Student (Undergraduate Research Opportunity Program)

- Led a project to find a common subtree shared between two sentences.

Honors & Awards	Outstanding Reviewer Award, ECCV 2024 link	2024
	Study Abroad Scholarship (10 exceptional alumni), Hanyang University	2023
	Outstanding Reviewer Award (top 4%), ECCV 2022 link	2022
	HY-IN Scholarship (for being an exceptional graduate student), Hanyang University	2020 – 2022
	Graduation Excellence Award (for academic achievements), Hanyang University	2020
	Grand Prize (2nd out of 66 teams), Undergraduate Project Competition, Hanyang University	2019
	Hanyang Academic Excellence Award (awarded twice), Hanyang University	2019
	Merit-based Scholarship (5 semesters), Hanyang University	2015 – 2019
Service	Conference Reviewer: CVPR 2022-2025, ICCV 2023, ECCV 2022-2024, WACV 2021-2024, ACCV 2022-2024	