

YoonwooJeong



Contact

jjw123822@gmail.com

Languages

Korean (native),
English (fluent)

Skills

Python, PyTorch,
CUDA, C/C++

GitHub

github.com/jeongyw12382

Website

jeongyw12382.github.io

Google Scholar

Yoonwoo Jeong

I am a Ph.D. student in the Computer Vision Lab at POSTECH, advised by Prof. Minsu Cho. My research focuses on **integrating 3D geometric understanding into vision foundation models**, spanning image and video generation, neural radiance fields, multi-view reasoning, and visual perception in large multimodal models. My broader goal is to build spatially aware foundation models that can perceive, reason about, and interact with the 3D world.

Education

2021–2027	Pohang University of Science and Technology (POSTECH) Integrated M.S./Ph.D. in Artificial Intelligence (expected 2027) Advisor: Prof. Minsu Cho	Pohang, Korea
2017–2020	Pohang University of Science and Technology (POSTECH) B.S. in Computer Science and Engineering	Pohang, Korea
2014–2017	Korea Science Academy of KAIST	Busan, Korea

Experience

2026	Research Intern, Meta (DINO Team) Developed a video generative model built on DINO representations.	Paris, France
2025	Research Intern, NVIDIA Research Developed 3D foundation models. Mentor: Jaesung Choe.	Taipei, Taiwan
2022–2023	Research Intern, Kakao Brain Developed text-to-3D diffusion models. Mentor: Doyup Lee.	Pangyo, Korea
2018–2020	Undergraduate Research Intern, Computer Vision Lab, POSTECH Developed robust visual correspondence models. Mentor: Jongmin Lee.	Pohang, Korea
2017–2018	Undergraduate Research Intern, Data Intelligence Lab, POSTECH Worked on neural image style transfer.	Pohang, Korea

Publications

* denotes work currently under review.

arXiv 2026*	Cog3DMap: Multi-View Vision-Language Reasoning with 3D Cognitive Maps 3D cognitive maps that strengthen the 3D reasoning of VLMs.	Co-first author
NVIDIA-Tech*	MV-SAM: Multi-view Promptable Segmentation using Pointmap Guidance An extension of SAM to multi-view inputs, trained without 3D or video datasets.	First author
NVIDIA-Tech*	Quantile Rendering: Efficiently Embedding High-dimensional Features on 3D Gaussian Splatting A generalizable 3D-GS network for open-vocabulary segmentation.	First author
NeurIPS 2026	Latent Reasoning in Continuous Space for Unified Multimodal Models Continuous latent reasoning that improves image generation in unified models.	Second author
ICML 2026	Vision-aligned Latent Reasoning for Multi-modal Large Language Model Injects knowledge from vision foundation models into multi-view VLMs.	Second author
arXiv 2025	RoDyGS: Robust Dynamic Gaussian Splatting for Casual Videos Pose-free dynamic neural fields leveraging geometric foundation models.	First author
ECCV 2024	NVS-Adapter: Plug-and-Play Novel View Synthesis from a Single Image A parameter-efficient adapter for text-to-3D generative models.	First author

ICML 2023	Stable and Consistent Prediction of 3D Characteristic Orientation via Invariant Residual Learning A 3D canonicalization framework for robust part-level segmentation.	Third author
NeurIPS-W 2022	SeLCA: Self-supervised Learning of Canonical Axes An image canonicalization framework that improves matching robustness.	Second author
NeurIPS 2022	PeRFception: Perception using Radiance Fields A large-scale neural field dataset for perception tasks.	First author
CVPR 2022	Fast Point Transformer An efficient voxel-based architecture for 3D perception.	Second author
BMVC 2021	Self-supervised Learning of Image Scale and Orientation Estimation A self-supervised framework for image canonicalization and matching.	Second author
ICCV 2021	Self-Calibrating Neural Radiance Fields The first pose-free NeRF optimization pipeline.	First author
WACV 2021	Learning to Distill Convolutional Features into Compact Local Descriptors A memory-efficient feature extractor for geometric matching.	Second author

Projects

GitHub stars (★) as of April 17, 2026.

2022	NeRF-Factory: An Awesome PyTorch NeRF Library [★: 1.3K] A PyTorch reimplementation of state-of-the-art NeRF models. Link: github.com/kakaobrain/nerf-factory	Project Leader
2022	PeRFception: Perception using Radiance Fields [★: 0.3K] A large-scale dataset for perception tasks based on neural fields. Link: github.com/POSTECH-CVLab/PeRFception	Project Leader
2021	SCNeRF: Self-Calibrating Neural Radiance Fields [★: 0.5K] Neural radiance fields for uncalibrated images. Link: github.com/POSTECH-CVLab/SCNeRF	Project Leader

Awards

2025	Postechian Fellowship Recognized for outstanding innovation and research excellence.	
2023	Postechian Fellowship Recognized for exceptional leadership and community engagement.	
2023	POSTECH Research Award Selected paper: <i>PeRFception</i> .	Excellence Award
2023	Samsung Humantech Paper Award Selected paper: <i>PeRFception</i> .	Encouragement Award
2022	Qualcomm Innovation Fellowship Korea Two papers selected: <i>Fast Point Transformer</i> and <i>SCNeRF</i> .	
2022	Samsung Humantech Paper Award Selected paper: <i>Fast Point Transformer</i> .	Silver Award
2022	POSTECH Research Award Selected paper: <i>Self-Calibrating Neural Radiance Fields</i> .	Top Award
2021	POSTECH Research Award Selected paper: <i>Self-supervised Learning of Image Scale and Orientation Estimation</i> .	Top Award
2019	PPC – POSTECH Programming Contest	Top Award

Presentations

2025	Invited Talk, RLWRLD Presented <i>RoDyGS</i> , a pose-free dynamic neural field framework.	Seoul, Korea
2024	Korea AI Summit Presented <i>NVS-Adapter</i> , a plug-and-play adapter for single-image novel view synthesis.	Seoul, Korea
2022	Guest Lecture – Kakao Brain, Kakao Enterprise, POSTECH, and MODULabs Lectured on recent advances in neural rendering.	Seoul, Korea
2021	Guest Lecture – Hanyang ERICA SW/ICT Tech Competition and POSTECH Shared research experiences and insights from graduate studies.	Online

Reviewing Services

2026	ICLR, CVPR, ECCV
2025	CVPR, NeurIPS, TPAMI
2024	ECCV, NeurIPS Datasets and Benchmarks Track
2022	CVPR, ECCV, NeurIPS Datasets and Benchmarks Track
2021	WACV
2020	NeurIPS

Extracurricular Activities

2023–2024	Student Council, Graduate School of Artificial Intelligence, POSTECH	President
2023–2025	Climbmax – POSTECH Sport Climbing Club	President
2023–2024	POSTEnglish – POSTECH English Debate Team	Member
2017–2019	CHEERO – POSTECH Cheerleading Club	President
2017–2018	POSCAT – POSTECH Computing Algorithms Team Competed at ACM-ICPC regionals.	Member