JUNHA LEE

junha.lee@postech.ac.kr | junha-l.github.io

Cheongam-Ro 77, POSTECH, Pohang-Si, Republic of Korea (37673)

Education

POSTECH   *2021 – present*

Ph.D. in Computer Science and Engineering – *Supervised by Prof. Minsu Cho*
- Research Interest: 3D Geometry and Perception, 3D reconstruction, and Implicit representation

POSTECH   *2019 – 2021*

M.S. in Computer Science and Engineering
- Thesis: Global Point Cloud Registration using High-dimensional ConvNets and Hough Voting

POSTECH   *2012 – 2019*

B.S. in Computer Science and Engineering

Experience

NVIDIA   *2024.09 – present*

Research Intern, Remote – *Hosted by Chris Choy and Jan Kautz*
- Topic: Open-vocabulary 3D Foundation Models

NVIDIA   *2024.06 – 2024.09*

Research Intern, Onsite: Santa Clara, CA, USA– *Hosted by Chris Choy and Jan Kautz*
- Topic: 3D Multimodal Large Language Models

Publications

Mosaic3D: Foundation Dataset and Model for Open-Vocabulary 3D Segmentation

*Junha Lee, *Chunghyun Park, Jaesung Choe, Yu-Chiang Frank Wang, Minsu Cho, and Chris Choy

CVPR 2025

3D Geometric Shape Assembly via Efficient Point Cloud Matching

*Nahyuk Lee, *Juhong Min, **Junha Lee**, Seungwook Kim, Kanghee Lee, Jaesik Park, and Minsu Cho

ICML 2024

Learning to Register Unbalanced Point Pairs

Kanghee Lee, **Junha Lee**, and Jaesik Park

CVPRW 2023, 3D Vision and Robotics Workshop

PeRFception: Perception using Radiance Fields

*Yoonwoo Jeong, *Seungjoo Shin, ***Junha Lee**, Christopher Choy, Animashree Anandkumar, Minsu Cho, and Jaesik Park (*equal contribution)

NeurIPS 2022, Track on Datasets and Benchmarks

Deep Hough Voting for Robust Global Registration

Junha Lee, Seungwook Kim, Minsu Cho, and Jaesik Park

ICCV 2021

High-Dimensional Convolutional Networks for Geometric Pattern Recognition

Christopher Choy, **Junha Lee**, Rene Ranftl, Jaesik Park, and Vladlen Koltun

*CVPR 2020, (**Oral** Presentation, 5.7% acceptance rate)*

Other Publications

Putting 3D Spatially Sparse Networks on a Diet

Junha Lee, Christopher Choy, Animashree Anandkumar, and Jaesik Park

2112.01316 (arXiv) 2021

Robust Global Registration via Hierarchical Hough Voting

Junha Lee, Seungwook Kim, Minsu Cho, and Jaesik Park

*33rd Workshop on Image Processing and Image Understanding (**IPIU**), 2021*

Last Modified: Apr 27, 2025

Awards

IPIU Best Paper Award *2024*

Grand prize, *"3D Geometric Shape Assembly via Efficient Point Cloud Matching"*

29th Samsung HumanTech Paper Award *2022*

4th place prize, *"PeRFception: Perception using Radiance Fields"*

BK Outstanding Paper Award *2022*

Outstanding paper, *"PeRFception: Perception using Radiance Fields"*

BK Outstanding Paper Award *2021*

Outstanding paper, *"Deep Houging Voting for Robust Global Registration"*

IPIU Best Paper Award *2021*

Gold prize, *"Robust Global Registration via Hierarchical Hough Voting"*

Projects

Open3D | *Contributor* *Aug. 2020 – Aug. 2023*

- Implemented the highly optimized built-in implementations that support various arbitrary dimensional neighbor search methods supporting both CPU and GPU, which can be utilized as a low-level operation for various types of 3D data processing.

Academic Services

Conference Reviewer

CVPR (2022-2025), ECCV(2022,2024), ICCV (2021,2023,2025), BMVC (2021)

Journal Reviewer

TPAMI (2022,2024), IJCV (2024), IEEE RA-L/ICRA (2021)

Teaching

CSED103: Introduction to Programming *Autumn, 2024*

Teaching Assistant (96h)

CSED233: Data Structure *Spring, 2020*

Teaching Assistant (96h)