

Jungho Lee

PH.D CANDIDATE

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RESEARCH INTERESTS

Neural View Synthesis

- Neural Radiance Fields
- 3D Gaussian Splatting

Human Motion Analysis

- Human Avatar Generation
- Skeleton-based Action Recognition

Mathematical Machine Learning Tool

- Neural Ordinary Differential Equations

EDUCATION

Yonsei University | College of Engineering

Seoul, South Korea

INTERATED M.S./PH.D IN ELECTRICAL AND ELECTRONIC ENGINEERING

Sep. 2021 - Aug. 2026 (Expected)

- Image and Video Pattern Recognition Lab.
- Advisor: Prof. Sangyoun Lee

Yonsei University | College of Engineering

Seoul, South Korea

B.S. IN ELECTRICAL & ELECTRONIC ENGINEERING

Mar. 2015 - Aug. 2021

- 2-Year Military Service (2017-2019)

RESEARCH EXPERIENCE

NAVER Cloud

Seongnam, South Korea

RESEARCH INTERN

Aug. 2024 - Feb. 2025

- 3D Scene Representation from Defocused Images
- 3D Human Avatar Generation
- Mentor: Ho-Deok Jang

PUBLICATIONS

First-Author Papers

SwiftVGGT: Scalable Visual Geometry Grounded Transformer for Large-Scale Scenes

2026

JUNGHO LEE, MINHYEOK LEE, SUNGHUN YANG, MINSEOK KANG, SANGYOUN LEE

Submitted to the IEEE/CVF Computer Vision and Pattern Recognition (CVPR)

CoMoGaussian: Continuous Motion-Aware Gaussian Splatting from Motion-Blurred Images

2025

JUNGHO LEE, DONGHYEONG KIM, DOGYOON LEE, SUHWAN CHO, MINHYEOK LEE, WONJOON LEE, TAEOH KIM, DONGYOON WEE, SANGYOUN LEE

Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)

CoCoGaussian: Leveraging Circle of Confusion for Gaussian Splatting from Defocused Images

2025

JUNGHO LEE, SUHWAN CHO, TAEOH KIM, HO-DEOK JANG, MINHYEOK LEE, GEONHO CHA, DONGYOON WEE, DOGYOON LEE, SANGYOUN LEE

Proceedings of the IEEE/CVF Computer Vision and Pattern Recognition (CVPR)

SMURF: Continuous Dynamics for Motion-Deblurring Radiance Fields

2025

JUNGHO LEE, DOGYOON LEE, MINHYEOK LEE, DONGHYEONG KIM, SANGYOUN LEE

2nd Workshop on Neural Fields Beyond Conventional Cameras (CVPRW)

Hierarchically Decomposed Graph Convolutional Networks for Skeleton-Based Action Recognition

2023

JUNGHO LEE, MINHYEOK LEE, DOGYOON LEE, SANGYOUN LEE

Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)

Leveraging Spatio-Temporal Dependency for Skeleton-Based Action Recognition

2023

JUNGHO LEE, MINHYEOK LEE, SUHWAN CHO, SUNGMIN WOO, SUNGJUN JANG, SANGYOUN LEE

Proceedings of the IEEE/CVF International Conference on Computer Vision (*ICCV*)

Conference Proceedings

MonoCLUE: Object-Aware Clustering Enhances Monocular 3D Object Detection

2026

SUNGHUN YANG, MINHYEOK LEE, JUNGHO LEE, SANGYOUN LEE

The Association for the Advancement of Artificial Intelligence (*AAAI*)

GenCLIP: Generalizing CLIP Prompts for Zero-Shot Anomaly Detection

2025

DONGHYEONG KIM, CHAEWON PARK, SUHWAN CHO, HYEONJEONG LIM, MINSEOK KANG, JUNGHO LEE, SANGYOUN LEE

The 3rd Workshop in Vision-based InduStrial InspectiON (*ICCVW*)

Find First, Track Next: Decoupling Identification and Propagation in Referring Video Object Segmentation

2025

SUHWAN CHO, SEUNGHOON LEE, MINHYEOK LEE, JUNGHO LEE, SANGYOUN LEE

The 7th Large-Scale Object Segmentation (*LSVOS*) Workshop (*ICCVW*)

DepthFlow: Exploiting Depth-Flow Structural Correlations for Unsupervised Video Object Segmentation

2025

SUHWAN CHO, MINHYEOK LEE, JUNGHO LEE, DONGHYEONG KIM, SANGYOUN LEE

The 7th Large-Scale Object Segmentation (*LSVOS*) Workshop (*ICCVW*)

TransFlow: Motion Knowledge Transfer from Video Diffusion Models to Video Salient Object Detection

2025

SUHWAN CHO, MINHYEOK LEE, JUNGHO LEE, SUNGHUN YANG, SANGYOUN LEE

The 7th Large-Scale Object Segmentation (*LSVOS*) Workshop (*ICCVW*)

CoMoGaussian: Continuous Motion-Aware Gaussian Splatting from Motion-Blurred Images

2025

JUNGHO LEE, DONGHYEONG KIM, DOGYOON LEE, SUHWAN CHO, MINHYEOK LEE, WONJOON LEE, TAEOH KIM, DONGYOON WEE, SANGYOUN LEE

Proceedings of the IEEE/CVF International Conference on Computer Vision (*ICCV*)

CMTM: Cross-Modal Token Modulation for Unsupervised Video Object Segmentation

2025

INSEOK JEON, SUHWAN CHO, MINHYEOK LEE, SEUNGHOON LEE, MINSEOK KANG, JUNGHO LEE, CHAEWON PARK, DONGHYEONG KIM, SANGYOUN LEE

IEEE International Conference on Image Processing (*ICIP*)

CoCoGaussian: Leveraging Circle of Confusion for Gaussian Splatting from Defocused Images

2025

JUNGHO LEE, SUHWAN CHO, TAEOH KIM, HO-DEOK JANG, MINHYEOK LEE, GEONHO CHA, DONGYOON WEE, DOGYOON LEE, SANGYOUN LEE

Proceedings of the IEEE/CVF Computer Vision and Pattern Recognition (*CVPR*)

Effective SAM Combination for Open-Vocabulary Semantic Segmentation

2025

MINHYEOK LEE, SUHWAN CHO, JUNGHO LEE, SUNGHUN YANG, HEESEUNG CHOI, IG-JAE KIM, SANGYOUN LEE

Proceedings of the IEEE/CVF Computer Vision and Pattern Recognition (*CVPR*) - *Oral Presentation*

SMURF: Continuous Dynamics for Motion-Deblurring Radiance Fields

2025

JUNGHO LEE, DOGYOON LEE, MINHYEOK LEE, DONGHYEONG KIM, SANGYOUN LEE

2nd Workshop on Neural Fields Beyond Conventional Cameras (*CVPRW*)

Video Diffusion Models are Strong Video Inpainter

2025

MINHYEOK LEE, SUHWAN CHO, CHAJIN SHIN, JUNGHO LEE, SUNGHUN YANG, SANGYOUN LEE

The Association for the Advancement of Artificial Intelligence (*AAAI*)

Guided Slot Attention for Unsupervised Video Object Segmentation

2024

MINHYEOK LEE, DOGYOON LEE, SUHWAN CHO, CHAEWON PARK, JUNGHO LEE, SANGYOUN LEE

Proceedings of the IEEE/CVF Computer Vision and Pattern Recognition (*CVPR*)

Hierarchically Decomposed Graph Convolutional Networks for Skeleton-Based Action Recognition

2023

JUNGHO LEE, MINHYEOK LEE, DOGYOON LEE, SANGYOUN LEE

Proceedings of the IEEE/CVF International Conference on Computer Vision (*ICCV*)

Leveraging Spatio-Temporal Dependency for Skeleton-Based Action Recognition

2023

JUNGHO LEE, MINHYEOK LEE, SUHWAN CHO, SUNGMIN WOO, SUNGJUN JANG, SANGYOUN LEE

Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)

Detection-Identification Balancing Margin Loss for One-Stage Multi-Object Tracking

2022

HEANSUNG LEE, SUHWAN CHO, SUNGJUN JANG, JUNGHO LEE, SANGYOUN LEE

IEEE International Conference on Image Processing (ICIP)

Journals

Sparse-DeRF: Deblurred Neural Radiance Fields from Sparse View

2025

DOGYOON LEE, DONGHYEONG KIM, JUNGHO LEE, MINHYEOK LEE, SEUNGHOON LEE, SANGYOUN LEE

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

Treating Motion as Option with Output Selection for Unsupervised Video Object Segmentation

2025

SUHWAN CHO, MINHYEOK LEE, JUNGHO LEE, MYEONGAH CHO, SANGYOUN LEE

IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)

Multi-Scale Structural Graph Convolutional Network for Skeleton-Based Action Recognition

2024

SUNGJUN JANG, HEANSUNG LEE, WOOGIN KIM, JUNGHO LEE, SUNGMIN WOO, SANGYOUN LEE

IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)

PATENTS

Domestic Patent

- [P3] Palmprint Recognition Method. KR-Application No.10-2023-0156996, Nov., 2023.
- [P2] Skeleton Graph-based Action Recognition Device and Method. KR-Application No.10-2023-0123693, Sep., 2023.
- [P1] Video Anomaly Detection Apparatus and Method using Relational Embedding. KR-Application No.10-2022-0156968, Nov., 2022.

PROJECTS

Research on Robust Neural Rendering-Based Large-Scale 3D Ultra-Precision Virtual Space Generation and Spatial Registration for Low-Quality Noisy Data

National Research Foundation of Korea

May. 2024 - Apr. 2027

DEEP LEARNING RESEARCHER

- Development of large scene reconstruction by 3D Gaussian Splatting.

Collaborative Perception and Intelligence Framework for Hyper-connected Interaction among Human and Intelligent Things

Korea Electronics Technology Institute

Apr. 2024 - Dec. 2025

DEEP LEARNING RESEARCHER

- Development of efficient skeleton-based action recognition model.

Development of Anti-spoofing Model for Face Recognition Based on RGB Camera

Samsung Electronics

Aug. 2023 - Jul. 2024

DEEP LEARNING RESEARCHER

- Development of face anti-spoofing model robust to various spoofing attack.

Development of Mobile Palmprint Recognition Algorithm

Samsung Electronics

Aug. 2022 - Jul. 2023

DEEP LEARNING RESEARCHER

- Development of one-stage real-time mobile network, which includes keypoint detection and palmprint recognition.
- Development of real-time Android demo application for palmprint recognition.

Deep Learning-Based Initial Identification and Tracking System for Missing Persons in Heterogeneous CCTV Images

National Research Foundation of Korea

Oct. 2018 - Dec. 2022

DEEP LEARNING RESEARCHER

- Development of real-time multi-object tracking algorithm robust to occluded person.

Development of AI Multi-Object Tracking and Behavior Analysis Technology

Hanwha Techwin

Oct. 2020 - Oct. 2021

DEEP LEARNING RESEARCHER

- Development of robust feature extractor for the object detection network.

Professional Services

Invited Talks

- “3D Neural View Synthesis from Degraded Images,” NAVER AI Lab
- “3D Neural View Synthesis from Degraded Images,” Korean Electronics Technology Institute
- “Leveraging Circle of Confusion for 3D Neural View Synthesis,” Korean Photonics Technology Institute

Jul. 2025
Jul. 2025
May. 2025

Journal Reviewer

- IEEE Transactions on Graphics (**TOG**) 2025
- International Journal of Computer Vision (**IJCV**) 2024
- IEEE Transactions on Multimedia (**TMM**) 2024
- IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**) 2023
- IEEE Transactions on Neural Networks and Learning Systems (**TNNLS**) 2023
- IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT**) 2023

Conference Reviewer

- Association for the Advancement of Artificial Intelligence (**AAAI**) 2026
- IEEE/CVF Computer Vision and Pattern Recognition (**CVPR**) - **Outstanding Reviewer (top 5%)** 2025
- Conference on Neural Information Processing Systems (**NeurIPS**) 2024
- European Conference on Computer Vision (**ECCV**) 2024
- IEEE/CVF Winter Conference on Applications of Computer Vision (**WACV**) 2024

TEACHING EXPERIENCES

Understanding and Using AI

TEACHING ASSISTANT

Yonsei University

Spring 2022 - Spring 2025

Deep Learning Lab.

TEACHING ASSISTANT

Yonsei University

Spring 2023

Digital Logic Circuit

TEACHING ASSISTANT

Yonsei University

Fall 2021

SKILLS

Research and Development Stacks

Main Languages Python, C/C++, MATLAB, Kotlin

Machine Learning PyTorch, TensorFlow, Keras

Computer Vision OpenCV

REFERENCES

Sangyoun Lee Professor, Yonsei University

syleee@yonsei.ac.kr