Jungho **Lee**

PH.D CANDIDATE

50, Yonsei-ro, Seodaemun-gu, Seoul, Republic of Korea

✉ 2015142131@yonsei.ac.kr | ⌂ Jho-Yonsei.github.io | ⬡ Jho-Yonsei | 🎓 Jungho Lee

RESEARCH INTERESTS

Human Motion Analysis
- Human Avatar Generation
- Skeleton-based Action Recognition

Neural View Synthesis
- Neural Randiance Fields
- 3D Gaussian Splatting

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 Avater Generation
- Mentor: Ho-Deok Jang

PUBLICATIONS

First-Author Papers

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

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

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
*Proceedings of the IEEE/CVF Computer Vision and Pattern Recognition Workshop (**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, Woojin 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*

DEEP LEARNING RESEARCHER — *May. 2024 - Apr. 2027*

- 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*

DEEP LEARNING RESEARCHER — *Apr. 2024 - Dec. 2025*

- Development of efficient skeleton-based action recognition model.

Development of Anti-spoofing Model for Face Recognition Based on RGB Camera — *Samsung Electronics*

DEEP LEARNING RESEARCHER — *Aug. 2023 - Jul. 2024*

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

Development of Mobile Palmprint Recognition Algorithm — *Samsung Electronics*

DEEP LEARNING RESEARCHER — *Aug. 2022 - Jul. 2023*

- 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*

DEEP LEARNING RESEARCHER — *Oct. 2018 - Dec. 2022*

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

Development of AI Multi-Object Tracking and Behavior Analysis Technology — *Hanwha Techwin*

DEEP LEARNING RESEARCHER — *Oct. 2020 - Oct. 2021*

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

Professional Services

Invited Talks

- *"3D Neural View Synthesis from Degraded Images,"* NAVER AI Lab — *Jul. 2025*
- *"3D Neural View Synthesis from Degraded Images,"* Korean Electronics Technology Institute — *Jul. 2025*
- *"Leveraging Circle of Confusion for 3D Neural View Synthesis,"* Korean Photonics Technology Institute — *May. 2025*

Journal Reviewer

- 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

- 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 — *Yonsei University*

TEACHING ASSISTANT — *Spring 2022 - Spring 2025*

Deep Learning Lab. — *Yonsei University*

TEACHING ASSISTANT — *Spring 2023*

Digital Locig Circuit

Teaching Assistant

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