

Kim Youwang

Curriculum Vitae

youwang.kim@postech.ac.kr | kim-youwang.github.io

EDUCATION

Pohang University of Science and Technology, POSTECH
Integrated M.S. & Ph.D., Electrical Engineering

Pohang, Korea
2026 (Expected)

Pohang University of Science and Technology, POSTECH
B.S., Electrical Engineering

Pohang, Korea
2020

RESEARCH INTERESTS

Goal – Synthesize realistic 3D/4D digital twins (e.g., humans, animals, objects and robots) from limited observations and data, aiming advancements in virtual experiences.

Keywords – Computer Vision, Computer Graphics, Generative AI

EXPERIENCE

Research Scientist Intern, Meta
Meta Codec Avatars Lab (Managers: Yaser Sheikh, Chen Cao)

Pittsburgh, PA
Oct. 2024 – Mar. 2025

Visiting Ph.D. Student, Univ. of Tübingen
Real Virtual Humans group (Advisor: Gerard Pons-Moll)

Tübingen, Germany
Oct. 2023 – Mar. 2024

Exchange Student, NTU
Nanyang Technological University (NTU)

Nanyang, Singapore
Aug. 2019 – Dec. 2019

AWARDS AND HONORS

Best Poster Award, BMVC 2024
“MeTTA: Single-View to 3D Textured Mesh Reconstruction with Test-Time Adaptation”

Excellence Prize, Electronics Times ICT Paper Awards 2024
“Feed-Forward Photorealistic Style Transfer for Large-Scale 3D Neural Radiance Field”

Best Poster Award, POSTECH-KAIST Joint ML Workshop 2024
“Paint-it: Text-to-Texture Synthesis via Deep Convolutional Texture Map Optimization and ...”

Grand Prize (Minister’s Award, \$12K), Electronics Times ICT Paper Awards 2023
“CLIP-Actor: Text-Driven Recommendation and Stylization for Generating Virtual Human Avatars”

Outstanding Reviewer Award, ICCV 2023
Top 1.89% reviewer among 6990 reviewers

Winner (\$4,000), Qualcomm Innovation Fellowship Korea (QIFK) 2022
“CLIP-Actor: Text-Driven Recommendation and Stylization for Animating Human Meshes”

International Computer Vision Summer School (ICVSS) 2022
“Unified 3D Mesh Recovery of Humans and Animals by Learning Animal Exercise”

PUBLICATIONS

Abbreviations

| | |
|-------|---|
| TPAMI | <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> |
| IJCV | <i>International Journal of Computer Vision</i> |
| TMLR | <i>Transactions on Machine Learning Research</i> |
| CVPR | <i>IEEE Conference on Computer Vision and Pattern Recognition</i> |
| ECCV | <i>European Conference on Computer Vision</i> |
| ICCV | <i>IEEE International Conference on Computer Vision</i> |
| ICLR | <i>International Conference on Learning Representation</i> |
| AAAI | <i>AAAI Conference on Artificial Intelligence</i> |
| BMVC | <i>British Machine Vision Conference</i> |

Journal Articles

- J04. **Kim Youwang***, T. Byun*, K. Ji-Yeon, S. Choi, T.-H. Oh, “CLIP-Actor-X: Text-driven 4D Human Avatar Generation via Cross-modal Synthesis-through-Optimization,” *TPAMI*, *under revision*.
- J03. G. Kim, **Kim Youwang**, L. Hyoseok, T.-H. Oh, “FPGS: Feed-Forward Semantic-aware Photorealistic Style Transfer of Large-Scale Gaussian Splatting,” *IJCV*, *under revision*.
([Excellence Prize at the Electronics Times ICT Paper Awards 2024](#))
- J02. **Kim Youwang**, L. Hyun*, K. Sung-Bin*, S.-K. Nam, J.-H. Joo, T.-H. Oh, “A Large-Scale 3D Face Mesh Video Dataset via Neural Re-parameterized Optimization,” *TMLR*, 2024.
([Top 5.0% TMLR papers in 2 years – Transferred to ICLR 2025](#))
- J01. D. H. Ryou, **Kim Youwang**, T.-H. Oh, “Multi-stage Adaptive Rank Statistic Pruning for Lightweight Human 3D Mesh Recovery Model,” *The Visual Computer Journal (TVCJ)*, Springer, 2023

Conference Papers (acceptance rates typically 3%~25%)

- C12. A paper on “Feed-forward monocular 3D avatar generation”, *submitted*.
- C11. A paper on “Efficient monocular 3D avatar generation”, *submitted*.
- C10. A paper on “Vision-based robot state estimation”, *submitted*.
- C09. **Kim Youwang**, L. Hyoseok, G. Pons-Moll, T.-H. Oh, “Dress-up: Generating Animatable Clothed 3D Humans via Latent Modeling of 3D Gaussian Texture Maps,” *ICCV Workshop on Computer Vision for Fashion, Art, and Design*, 2025.
([Oral presentation](#))
- C08. J. Cho, **Kim Youwang**, H. M. Yang, T.-H. Oh, “Robust 3D Shape Reconstruction in Zero-Shot from a Single Image in the Wild,” *CVPR*, 2025.
- C07. **Kim Youwang**, L. Hyun*, K. Sung-Bin*, S.-K. Nam, J.-H. Joo, T.-H. Oh, “A Large-Scale 3D Face Mesh Video Dataset via Neural Re-parameterized Optimization,” *ICLR*, 2025.
([Invited as a poster presentation – Top 5.0% TMLR papers in 2 years invited](#))
- C06. K. Yu-Ji, H. Ha, **Kim Youwang**, J. Surh, H. Ha, T.-H. Oh, “MeTTA: Single-View to 3D Textured Mesh Reconstruction with Test-Time Adaptation,” *BMVC*, 2024.
([Best Poster Award at BMVC 2024](#))
- C05. **Kim Youwang**, T.-H. Oh, G. Pons-Moll, “Paint-it: Text-to-Texture Synthesis via Deep Convolutional Texture Map Optimization and Physically-Based Rendering,” *CVPR*, 2024.
([Best Poster Award at POSTECH-KAIST joint ML workshop 2024](#))
- C04. G. Kim, **Kim Youwang**, T.-H. Oh, “Feed-Forward Photorealistic Style Transfer for Large-Scale 3D Neural Radiance Field,” *AAAI*, 2024.

- C03. **Kim Youwang***, K. Ji-Yeon*, T.-H. Oh, "CLIP-Actor: Text-Driven Recommendation and Stylization for Animating Human Meshes," *ECCV*, 2022.
([Winner of the Electronics Times ICT Paper Awards 2023](#), [Winner of the Qualcomm Innovation Fellowship Korea, 2022](#))
- C02. J. Cho, **Kim Youwang**, T.-H. Oh, "Cross-Attention of Disentangled Modalities for 3D Human Mesh Recovery with Transformers" *ECCV*, 2022.
- C01. **Kim Youwang**, K. Ji-Yeon, K. Joo, T.-H. Oh, "Unified 3D Mesh Recovery of Humans and Animals by Learning Animal Exercise," *BMVC*, 2021.
([Invited to ICVSS 2022](#))

PATENT

- (**US 20240273798 A1, Filed**) Text-driven motion recommendation and neural mesh stylization system and a method for producing human mesh animation using the same
- (**KR 10-2886014**) Method and apparatus for motion animating and mesh stylization using text-driven motion recommendation
- (**KR 10-2459293**) Method and apparatus for generating mesh model of human or quadrupeds
- (**KR 10-2416218**) Method and apparatus for obtaining segmentation of object included in image frame

PROFESSIONAL ACTIVITIES

Reviewer for Journals

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) – 2024, 2025
- ACM TOG/SIGGRAPH ASIA – 2024
- International Journal of Computer Vision (IJCV) – 2024, 2025
- Transactions on Machine Learning Research (TMLR) – 2025
- IEEE Transactions on Multimedia (TMM) – 2023

Reviewer for Conference Papers

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) – 2024, 2025, 2026
- IEEE/CVF International Conference on Computer Vision (ICCV) – 2023 ([Outstanding Reviewer](#)), 2025
- European Conference on Computer Vision (ECCV) – 2024
- Conference on Neural Information Processing Systems (NeurIPS) – 2024, 2025
- IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) – 2026
- British Machine Vision Conference (BMVC) – 2024

REFERENCE

Tae-Hyun Oh, Associate Professor, KAIST, Korea
Relationship: M.S. & Ph.D. advisor
email: thoh.kaist.ac.kr@gmail.com

Kyungdon Joo, Associate Professor, UNIST, Korea
Relationship: Collaborator
email: kyungdon@unist.ac.kr