Kim Youwang

Curriculum Vitae

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EDUCATION

Pohang University of Science and Technology, POSTECH — Pohang, Korea
M.S. & Ph.D., Electrical Engineering (Advisors: Tae-Hyun Oh, Kwang In Kim) — 2027 (Expected)

Pohang University of Science and Technology, POSTECH — Pohang, Korea
B.S., Electrical Engineering — 2020

RESEARCH INTERESTS

Goal – Advance real-time photorealistic simulation for physical AI & next-gen. global communication.
Keywords – Digital Twins, Simulation, Computer Vision, Computer Graphics, Generative AI

EXPERIENCE

(Incoming) Research Scientist Intern, Meta — Pittsburgh, PA
Meta Codec Avatars Lab (Manager: Chen Cao) — Jun. 2026 – Nov. 2026

Research Scientist Intern, NVIDIA — Remote, Korea
Real-Time Graphics Research (Manager: Aaron Lefohn) — Feb. 2026 – Jun. 2026

Research Scientist Intern, Meta — Pittsburgh, PA
Meta Codec Avatars Lab (Managers: Yaser Sheikh, Chen Cao) — Oct. 2024 – Mar. 2025

Visiting Ph.D. Student, Univ. of Tübingen — Tübingen, Germany
Real Virtual Humans group (Advisor: Gerard Pons-Moll) — Oct. 2023 – Mar. 2024

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	*IEEE Transactions on Pattern Analysis and Machine Intelligence*
IJCV	*International Journal of Computer Vision*
TMLR	*Transactions on Machine Learning Research*
CVPR	*IEEE Conference on Computer Vision and Pattern Recognition*
ECCV	*European Conference on Computer Vision*
ICCV	*IEEE International Conference on Computer Vision*
ICLR	*International Conference on Learning Representation*
AAAI	*AAAI Conference on Artificial Intelligence*
BMVC	*British Machine Vision Conference*

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, 2026 (Accepted)*.

J03. G. Kim, **Kim Youwang**, L. Hyoseok, T.-H. Oh, "FPGS: Feed-Forward Semantic-aware Photorealistic Style Transfer of Large-Scale Gaussian Splatting," *IJCV, 2026 (Accepted)*.
(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 20240273798A1) 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

MENTORING EXPERIENCE

Primary mentor for 2 Graduate Juniors & 7 Undergraduate Interns

4 mentees’ projects led to **top-tier publications** (IJCV’26, CVPR’25, AAAI’24, ECCV’22, TVCJ’23)

Mentored on problem formulation, method design, implementation, and paper writing

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

IEEE/CVF International Conference on Computer Vision (ICCV) – 2023 (Outstanding Reviewer), 2025

European Conference on Computer Vision (ECCV) – 2024, 2026

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
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Kyungdon Joo, Associate Professor, UNIST, Korea
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