

Kim Youwang

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Curriculum Vitae

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EDUCATION




Pohang University of Science and Technology, POSTECH M.S. & Ph.D., Electrical Engineering (Advisors: Tae-Hyun Oh, Kwang In Kim)	Pohang, Korea 2027 (Expected)
Pohang University of Science and Technology, POSTECH B.S., Electrical Engineering	Pohang, Korea 2020

RESEARCH INTERESTS

Goal – Build photorealistic & social world simulations for next-gen. physical AI & global communication.

Keywords – 3D/4D Digital Twins, Real-time Graphics, Computer Vision, Generative AI

EXPERIENCE

(Incoming) Research Scientist Intern, Meta  Meta Codec Avatars Lab (Manager: Chen Cao)	Pittsburgh, PA Jun. 2026 – Nov. 2026
Research Scientist Intern, NVIDIA  Real-Time Graphics Research (Manager: Aaron Lefohn)	Remote, Korea Mar. 2026 – Jun. 2026
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

AWARDS AND HONORS

Best Poster Award, BMVC “MeTTA: Single-View to 3D Textured Mesh Reconstruction with Test-Time Adaptation”	2024
Excellence Prize, Electronics Times ICT Paper Awards “Feed-Forward Photorealistic Style Transfer for Large-Scale 3D Neural Radiance Field”	2024
Best Poster Award, POSTECH-KAIST Joint ML Workshop “Paint-it: Text-to-Texture Synthesis via Deep Convolutional Texture Map Optimization and ...”	2024
Grand Prize (Minister’s Award, \$12K), Electronics Times ICT Paper Awards “CLIP-Actor: Text-Driven Recommendation and Stylization for Generating Virtual Human Avatars”	2023
Outstanding Reviewer Award, ICCV Top 1.89% reviewer among 6990 reviewers	2023
Winner (\$4,000), Qualcomm Innovation Fellowship Korea (QIFK) “CLIP-Actor: Text-Driven Recommendation and Stylization for Animating Human Meshes”	2022
International Computer Vision Summer School (ICVSS) “Unified 3D Mesh Recovery of Humans and Animals by Learning Animal Exercise”	2022

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*, 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 – 2026
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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