

Kim Youwang

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[Website](#) | [Scholar](#) | [Github](#)



RESEARCH GOAL

Generate and reconstruct realistic 3D embodiments (e.g., humans, animals, and robots) from limited observations, aiming advancements in virtual simulation and embodied intelligence.

Interests: 3D Computer Vision, Computer Graphics, Generative Models, Multi-modal Vision & Graphics Applications

EDUCATION

Pohang University of Science and Technology, POSTECH <i>Integrated M.S. & Ph.D., Electrical Engineering (Advisor: Prof. Tae-Hyun Oh)</i>	Sep. 2020 – Aug. 2026 (Expected) Pohang, Korea
Pohang University of Science and Technology, POSTECH <i>Bachelor of Science., Major: Electrical Engineering</i>	Mar. 2016 – Aug. 2020 Pohang, Korea

EXPERIENCE

Research Scientist Intern <i>Meta Reality Labs - Codec Avatars team (Manager: Chen Cao, Yaser Sheikh)</i> <ul style="list-style-type: none">Conducted research about photorealistic avatar generation.	Oct. 2024 – Mar. 2025 Pittsburgh, PA, US
Visiting Researcher <i>Real Virtual Humans group (PI: Gerard Pons-Moll)</i> <ul style="list-style-type: none">Research collaboration with Gerard Pons-Moll and his group.	Oct. 2023 – Mar. 2024 Tübingen, Germany
Exchange Student <i>Nanyang Technological University (NTU)</i> <ul style="list-style-type: none">Studied as an exchange student at NTU, Singapore for one semester.	Aug. 2019 – Dec. 2019 Nanyang, Singapore
Samsung Electronics Undergraduate Research Internship <i>Air Lab in Network Division</i> <ul style="list-style-type: none">Research on 5G NR base station's Uplink vector-X-check algorithm.	Jul. 2018 – Aug. 2018 Suwon, Korea

AWARD & HONOR

Best Poster Award, BMVC 2024 <i>"MeTTA: Single-View to 3D Textured Mesh Reconstruction with Test-Time Adaptation".</i>	Nov. 2024
Excellence Prize, Electronics Times ICT Paper Awards <i>"Feed-Forward Photorealistic Style Transfer for Large-Scale 3D Neural Radiance Field".</i>	Nov. 2024
Best Poster Award, Winner of POSTECH-KAIST joint ML workshop 2024 <i>"Paint-it: Text-to-Texture Synthesis via Deep Convolutional Texture Map Optimization and ...".</i>	Jul. 2024
Grand Prize (Minister's award, \$12K prize), Electronics Times ICT Paper Awards <i>"CLIP-Actor: Text-Driven Recommendation and Stylization for Generating Virtual Human Avatars".</i>	Dec. 2023
Outstanding Reviewer Award, ICCV 2023	Oct. 2023
Winner of Qualcomm Innovation Fellowship Korea (QIFK 2022, \$4,000 prize) <i>"CLIP-Actor: Text-Driven Recommendation and Stylization for Animating Human Meshes"</i>	Oct. 2022
Selected poster at International Computer Vision Summer School (ICVSS 2022) <i>"Unified 3D Mesh Recovery of Humans and Animals by Learning Animal Exercise"</i>	Jul. 2022

PUBLICATION (INTERNATIONAL)

(Equal contribution are denoted by “*”.)

Abbreviations

TPAMI	<i>IEEE Trans. on Pattern Analysis and Machine Intelligence</i>
IJCV	<i>International Journal of Computer Vision</i>
TMLR	<i>Trans. on Machine Learning Research</i>
CVPR	<i>IEEE Conf. on Computer Vision and Pattern Recognition</i>
ECCV	<i>European Conf. on Computer Vision</i>
ICCV	<i>IEEE Int. Conf. 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>

The top CV/AI/ML conferences (CVPR, ECCV, ICCV, NIPS, ICLR) are highly competitive with acceptance rates between 20-30%, and their oral and spotlight papers have acceptance rates of <2% and <9%, respectively.

Journal

- [J4] **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.
- [J3] G. Kim, **Kim Youwang**, L. Hyoseok, T.-H. Oh, “FPGS: Feed-Forward Semantic-aware Photorealistic Style Transfer of Large-Scale Gaussian Splatting,” *IJCV*, under review.
([Excellence Prize at the Electronics Times ICT Paper Awards 2024.](#))
- [J2] **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.
([Invited to ICLR 2025 as a poster presentation.](#))
- [J1] 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

- [C13] A paper on “High-quality 3D avatar generation”, *submitted*
- [C12] **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,” *Workshop on Computer Vision for Fashion, Art, and Design (in conj. with ICCV)*, 2025.
([Oral presentation.](#))
- [C11] 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.
- [C10] **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.
([TMLR 2024 paper, NeuFace, invited as a poster presentation. Top 5.0% TMLR papers in 2 years invited.](#))
- [C9] 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.](#))
- [C8] **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. Also, presented in Workshop on AI4CC: AI for Content Creation & in Workshop on AI3DG: AI for 3D Generation, in conjunction with CVPR 2024.](#))
- [C7] J. Cho, **Kim Youwang**, H. Yang, T.-H. Oh, “ObjectDR: Object-Centric Domain Randomization for 3D Shape Reconstruction in the Wild,” *Workshop on Foundation Model (in conj. with CVPR)*, 2024.

- [C6] G. Kim, **Kim Youwang**, T.-H. Oh, “Feed-Forward Photorealistic Style Transfer for Large-Scale 3D Neural Radiance Field,” *AAAI*, 2024.
- [C5] **Kim Youwang**, T.-H. Oh, “Text-driven Human Avatar Generation by Neural Re-parameterized Texture Optimization,” *Workshop on AI3DCC: AI for 3D Content Creation (in conj. with ICCV)*, 2023.
- [C4] **Kim Youwang**, L. Hyun*, K. Sung-Bin*, S.-K. Nam, J.-H. Joo, T.-H. Oh, “Spatio-Temporally Consistent Face Mesh Reconstruction on Videos,” *Workshop on 3DMV: Learning 3D with Multi-View Supervision (in conj. with CVPR)*, 2023.
- [C3] **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, Qualcomm Innovation Award Winner 2022. Also, presented in Workshop on AI4CC: AI for Content Creation, in conjunction with CVPR 2023.)
- [C2] J. Cho, **Kim Youwang**, T.-H. Oh, “Cross-Attention of Disentangled Modalities for 3D Human Mesh Recovery with Transformers” *ECCV*, 2022.
(Featured as a representative trend in the “Weekly ICT Trends” report, Vol. 2086 (2023.04.05) published by Institute for Information & communication Technology Planning & evaluation(IITP), Korea.)
- [C1] **Kim Youwang**, K. Ji-Yeon, K. Joo, T.-H. Oh, “Unified 3D Mesh Recovery of Humans and Animals by Learning Animal Exercise,” *BMVC*, 2021. (Accepted poster at ICVSS 2022)

PATENT

Text-driven motion recommendation and neural mesh stylization system ...	US 18/440,889 - Filed
Method and apparatus for generating mesh model of human or quadrupeds	KR10-2459293
Method and apparatus for obtaining segmentation of object included in image frame	KR10-2416218

ACADEMIC SERVICE

Journal Reviewer

- 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

Conference Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024, 2025
- IEEE/CVF International Conference on Computer Vision (ICCV), 2023, 2025
(**Outstanding reviewer award 2023**)
- European Conference on Computer Vision (ECCV), 2024
- Conference on Neural Information Processing Systems (NeurIPS), 2024, 2025
- British Machine Vision Conference (BMVC), 2024

REFERENCE

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