Nikolaos Sarafianos

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Experience

• Meta Reality Labs, Staff Research Scientist, Burlingame, CA

(06.2019 - Present)

- Currently: 3D Generative AI for Avatars, Garments and Objects
- Past: Dense correspondences, 3D Reconstruction, Neural rendering and Synthetic data

• Meta Reality Labs, Research Scientist Intern, Sausalito, CA

(05.2018 - 08.2018)

- Generative models for 3D humans

• Amazon, Alexa Machine Learning, Research Scientist Intern, Cambridge, MA

(05.2017 - 08.2017)

Acoustic event detection

Education

• Ph.D. in Computer Science, University of Houston, Houston, TX

(09.2014 - 05.2019)

- 3D human pose estimation, Visual attribute classification, Text-to-image retrieval
- Diploma in Electrical and Computer Engineering, National Technical University of Athens, Greece (09.2008 10.2013)
 - 5-year studies equivalent to Master

Recent Publications

- 1. W. Gao, D. Wang, Y. Fan, A. Božič, T. Stuyck, Z. Li, Z. Dong, R. Ranjan, N. Sarafianos, "3D Mesh Editing using Masked LRMs", ICCV 2025 Webpage
- 2. M. Guo, M. Chiang, I. Santesteban, **N. Sarafianos**, et al., "PGC: Physics-Based Gaussian Cloth from a Single Pose", CVPR 2025 (Highlight) **Webpage**
- 3. A. Rai, D. Wang, M. Jain, **N. Sarafianos**, A. Chen, S. Sridhar, A. Prakash, "UVGS: Reimagining Unstructured 3D Gaussian Splatting using UV Mapping", CVPR 2025 **Webpage**
- 4. T. Stuyck, G. Lin, E. Larionov, H.-y. Chen, A. Božič, N. Sarafianos, D. Roble, "Quaffure: Real-Time Quasi-Static Neural Hair Simulation", CVPR 2025 Webpage
- 5. N. Sarafianos, T. Stuyck, X. Xiang, Y. Li, J. Popovic, R. Ranjan, "Garment3DGen: 3D Garment Stylization and Texture Generation" 3DV 2025 Webpage
- 6. H. Jung, S. Nam, N. Sarafianos, S. Yoo, A. Sorkine-Hornung, R. Ranjan, "Geometry Transfer for Stylizing Radiance Fields" CVPR 2024 Webpage
- 7. Y. Li, H.-y. Chen, E. Larionov, N. Sarafianos, W. Matusik, T. Stuyck "DiffAvatar: Simulation-Ready Garment Optimization with Differentiable Simulation" CVPR 2024 Webpage
- 8. M. Pesavento, Y. Xu, N. Sarafianos, R. Maier, Z. Wang, C.H. Yao, M. Volino, E. Boyer, A. Hilton, T. Tung "ANIM: Accurate Neural Implicit Model for Human Reconstruction from a single RGB-D image" CVPR 2024 Webpage
- 9. Y. Xue, B. Bhatnagar, R. Marin, **N. Sarafianos**, Y. Xu, G. Pons-Moll, T. Tung "NSF: Neural Surface Fields for Human Modeling from Monocular Depth" ICCV 2023 **Webpage**
- 10. A. Frühstück, N. Sarafianos, Y. Xu, P. Wonka, T. Tung "VIVE3D: Viewpoint-Independent Video Editing using 3D-Aware GANs" CVPR 2023 Webpage
- 11. G. Tiwari, D. Antic, J. Lenssen, N. Sarafianos, T. Tung. and G. Pons-Moll "Pose-NDF: Modelling Human Pose Manifolds with Neural Distance Fields" ECCV 2022 (Oral, Best Paper Honorable Mention) Webpage

Programming Skills

• Proficient: Python, PyTorch

Fluent: C++, Blender

Achievements

• Best Paper Honorable Mention - ECCV 2022 [Link]

(2020,2021)

(2022)

 $\bullet\,$ Outstanding reviewer for ECCV 2020, CVPR 2021, ICCV 2021

(2020-2023)

• 2 Patents granted on neural rendering and view synthesis for avatars

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• 3 Patents filed on garment optimization and scene stylization

(2023-2024)