

NIKOLAOS SARAFIANOS

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Experience

- **Meta Reality Labs**, Research Scientist, Burlingame, CA (06.2019 - Present)
 - *Currently*: 3D Generative AI for Avatars and Garments
 - *Past*: Dense correspondences, 3D Reconstruction, Neural rendering and Synthetic data for 3D humans
- **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. **N. Sarafianos**, T. Stuyck, X. Xiang, Y. Li, J. Popovic, R. Ranjan, “Garment3DGen: 3D Garment Stylization and Texture Generation” arxiv 2024 [Webpage](#)
2. H. Jung, S. Nam, **N. Sarafianos**, S. Yoo, A. Sorkine-Hornung, R. Ranjan, “Geometry Transfer for Stylizing Radiance Fields” CVPR 2024 [Webpage](#)
3. Y. Li, H.-y. Chen, E. Larionov, **N. Sarafianos**, W. Matusik, T. Stuyck “DiffAvatar: Simulation-Ready Garment Optimization with Differentiable Simulation” CVPR 2024 [Webpage](#)
4. 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](#)
5. A. Wang, Y. Xu, **N. Sarafianos**, R. Maier, E. Boyer, A. Yuille, T. Tung, “HISR: Hybrid Implicit Surface Representation for Photorealistic 3D Human Reconstruction” AAI 2024 [Webpage](#)
6. 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](#)
7. A. Frühstück, **N. Sarafianos**, Y. Xu, P. Wonka, T. Tung “VIVE3D: Viewpoint-Independent Video Editing using 3D-Aware GANs” CVPR 2023 [Webpage](#)
8. 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](#)
9. P. Nguyen, **N. Sarafianos**, C. Lassner, J. Heikkila, T. Tung “Free-Viewpoint RGB-D Human Performance Capture and Rendering” ECCV 2022 [Webpage](#)
10. A. Ianina, **N. Sarafianos**, Y. Xu, I. Rocco, T. Tung “BodyMap: Learning Full-Body Dense Correspondence Map” CVPR 2022 [Webpage](#)
11. P. Palafox, **N. Sarafianos**, T. Tung, A. Dai “SPAMs: Structured Implicit Parametric Models” CVPR 2022 [Webpage](#)

Programming Skills

- Proficient: Python, PyTorch
- Fluent: C++, Blender

Achievements

- Best Paper Honorable Mention - ECCV 2022 [\[Link\]](#) (2022)
- Outstanding reviewer for ECCV 2020, CVPR 2021, ICCV 2021 (2020,2021)
- 2 Patents approved on neural rendering and view synthesis for avatars (2020-2023)
- 3 Patents filed on garment optimization and scene stylization (2023-2024)