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'', arxiv 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**] (2022)
- Outstanding reviewer for ECCV 2020, CVPR 2021, ICCV 2021 (2020,2021)
- 2 Patents granted on neural rendering and view synthesis for avatars (2020-2023)
- 3 Patents filed on garment optimization and scene stylization (2023-2024)