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. H. Jung, S. Nam, N. Sarafianos, S. Yoo, A. Sorkine-Hornung, R. Ranjan, "Geometry Transfer for Stylizing Radiance Fields" CVPR 2024 Webpage
- 2. Y. Li, H.-y. Chen, E. Larionov, N. Sarafianos, W. Matusik, T. Stuyck "DiffAvatar: Simulation-Ready Garment Optimization with Differentiable Simulation" CVPR 2024 Webpage
- 3. 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
- 4. A. Wang, Y. Xu, N. Sarafianos, R. Maier, E. Boyer, A. Yuille, T. Tung, "HISR: Hybrid Implicit Surface Representation for Photorealistic 3D Human Reconstruction" AAAI 2024 Webpage
- 5. 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**
- 6. A. Frühstück, **N. Sarafianos**, Y. Xu, P. Wonka, T. Tung "VIVE3D: Viewpoint-Independent Video Editing using 3D-Aware GANs" CVPR 2023 **Webpage**
- 7. 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
- 8. P. Nguyen, **N. Sarafianos**, C. Lassner, J. Heikkila, T. Tung "Free-Viewpoint RGB-D Human Performance Capture and Rendering" ECCV 2022 **Webpage**
- 9. A. Ianina, **N. Sarafianos**, Y. Xu, I. Rocco, T. Tung "BodyMap: Learning Full-Body Dense Correspondence Map" CVPR 2022 **Webpage**
- 10. P. Palafox, N. Sarafianos, T. Tung, A. Dai "SPAMs: Structured Implicit Parametric Models" CVPR 2022 Webpage
- 11. G. Tiwari, N. Sarafianos, T. Tung. and G. Pons-Moll "Neural-GIF: Neural Generalized Implicit Functions for Animating People in Clothing" ICCV 2021 Webpage
- 12. B. Chaudhuri, N. Sarafianos, L. Shapiro and T. Tung. "Semi-supervised Synthesis of High-Resolution Editable Textures for 3D Humans" CVPR 2021 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)

• 3 Patents filed on neural rendering and optimization for avatars and garments

(2020-2023)