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

Selected Publications

1. 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**
2. 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**
3. A. Frühstück, **N. Sarafianos**, Y. Xu, P. Wonka, T. Tung "VIVE3D: Viewpoint-Independent Video Editing using 3D-Aware GANs" CVPR 2023 **Webpage**
4. 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**
5. P. Nguyen, **N. Sarafianos**, C. Lassner, J. Heikkila, T. Tung "Free-Viewpoint RGB-D Human Performance Capture and Rendering" ECCV 2022 **Webpage**
6. A. Ianina, **N. Sarafianos**, Y. Xu, I. Rocco, T. Tung "BodyMap: Learning Full-Body Dense Correspondence Map" CVPR 2022 **Webpage**
7. P. Palafox, **N. Sarafianos**, T. Tung, A. Dai "SPAMs: Structured Implicit Parametric Models" CVPR 2022 **Webpage**
8. G. Tiwari, **N. Sarafianos**, T. Tung. and G. Pons-Moll "Neural-GIF: Neural Generalized Implicit Functions for Animating People in Clothing" ICCV 2021 **Webpage**
9. B. Chaudhuri, **N. Sarafianos**, L. Shapiro and T. Tung. "Semi-supervised Synthesis of High-Resolution Editable Textures for 3D Humans" CVPR 2021 **Webpage**
10. **N. Sarafianos**, X. Xu, and I.A. Kakadiaris. "Adversarial Representation Learning for Text-to-Image Matching" ICCV 2019
11. **N. Sarafianos**, X. Xu and I.A. Kakadiaris. "Deep Imbalanced Attribute Classification using Visual Attention Aggregation" ECCV 2018
12. **N. Sarafianos**, B. Boteanu, B. Ionescu and I.A. Kakadiaris. "3D Human Pose Estimation: A Review of the Literature and Analysis of Covariates" CVIU 2016

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)