



Garvita Tiwari

EDUCATION

Max Planck Institute for Informatics and University of Tübingen Tubingen, Germany
Ph.D. in Computer Vision and Machine Learning. Advisor: Prof. Dr. Gerard Pons-Moll December 2019–Present

Saarland University Saarbrücken, Germany
M.Sc. in Visual Computing, GPA: 1.5/ 1.0 October 2017–November 2019
– Thesis: “Learning Size Sensitive Cloth Model”

Indian Institute of Information Technology Allahabad, India
B.Tech. in Electronics and Communication Engineering, GPA: 9.23/10.00 July 2012–May 2016
– Thesis: “3D indoor room reconstruction from smartphone images and sensors”

EXPERIENCE

FAIR, Meta London, UK
Research Scientist Intern July 2022 - November 2022
– Template free NeRFs for Human Modeling

Max Planck Institute for Informatics Saarbrücken, Germany
Research Immersion Lab August 2018- March 2019
– Clothing model, 3D Human Parsing.

AWS-Institut für digitale Produkte und Prozesse GmbH Saarbrücken, Germany
Junior Researcher August 2018 - July 2019
– Recommender system in supermarket: Multi-people motion tracking and merging incomplete trajectories, based on visual and motion cues.

INFURNIA TECHNOLOGIES PVT. LTD. Bengaluru , India
Software Developer July 2016- May 2017
– Developed robust Homography calculation using point and line features and android motion data for creating 360 Panaromic View of room.
– Developed Adaptive Canny Edge detection & marker based 3D room reconstruction.

IIT-BHU Varanasi, India
Summer Internship May 2014- June 2014
– Designing and study of patch antenna using HFSS.

PUBLICATIONS

- [1] D. Antic, G. **Tiwari**, B. Ozcomlekci, R. Marin, and G. Pons-Moll, “CloSe: A 3D Clothing Segmentation Dataset and Model”, in *International Conference on 3D Vision (3DV)*, Mar. 2024.
- [2] Y. He, G. **Tiwari**, T. Birdal, J. E. Lenssen, and G. Pons-Moll, “NRDF: Neural riemannian distance fields for learning articulated pose priors”, in *Conference on Computer Vision and Pattern Recognition (CVPR)*, Jun. 2024.

- [3] G. **Tiwari**, D. Antic, J. E. Lenssen, N. Sarafianos, T. Tung, and G. Pons-Moll, “Pose-NDF: Modeling human pose manifolds with neural distance fields”, in *European Conference on Computer Vision (ECCV)*, Springer, Oct. 2022.
- [4] G. **Tiwari**, N. Sarafianos, T. Tung, and G. Pons-Moll, “Neural-GIF: Neural generalized implicit functions for animating people in clothing”, in *IEEE International Conference on Computer Vision (ICCV)*, Springer, Oct. 2021.
- [5] G. **Tiwari**, B. L. Bhatnagar, T. Tung, and G. Pons-Moll, “SIZER: A dataset and model for parsing 3d clothing and learning size sensitive 3d clothing”, in *European Conference on Computer Vision (ECCV)*, Springer, Aug. 2020.
- [6] B. L. Bhatnagar, G. **Tiwari**, C. Theobalt, and G. Pons-Moll, “Multi-garment net: Learning to dress 3d people from images”, in *IEEE International Conference on Computer Vision (ICCV)*, IEEE, Oct. 2019.
- [7] P. Mohan, S. Srivastava, G. **Tiwari**, and R. Kala, “Background and skin colour independent hand region extraction and static gesture recognition”, in *2015 Eighth International Conference on Contemporary Computing (IC3)*, 2015, pp. 144–149.

ACADEMIC SERVICES

- **Conferences**

CVPR (2022, 2023, 2024), ICCV (2021, 2023), ECCV(2022), SIGGRAPH (2021), SIGGRAPH-Asia (2022, 2023), UIST (2020), 3DV (2020, 2021, 2022, 2024), MVA (2021), Eurographics (2021, 2023)

- **Journals**

Journal of Systems & Applications in Computer Graphics, IEEE Transactions on Visualization and Computer Graphics, PeerJ Computer Science, Computers Graphics

- **Teaching**

*Virtual Humans Lecture- University of Tuebingen, Winter Semester 2022
 Deep Learning for Vision and Graphics Seminar - University of Tuebingen, Summer Semester 2022
 Software Engineering Project, University of Tuebingen, Summer Semester 2022
 Software Engineering Project, University of Tuebingen, Winter Semester 2022*

- **Supervised master’s/bachelor’s thesis**

*Dimitrije Antić(now PhD student at UvA): 3D Clothing Segmentation, 2023
 Batuhan Ozcomlekci: Gaussian Splatting for human modeling, Ongoing
 Samuel Zink: OpenVocab 3D Clothing Segmentation, Ongoing*

TALKS

- **Bosch AI Talk Series Virtual** April 2023
Neural Distance Fields for Human-Clothing Models and Pose Manifolds.
- **JHU Virtual** April 2023
Pose-NDF: Modeling Human Pose Manifolds with Neural Distance Fields
- **ECCV 2022 Tel-Aviv** October 2022
Pose-NDF: Modeling Human Pose Manifolds with Neural Distance Fields
- **Google Research at Zurich(Virtual)** July 2022
Pose-NDF: Modeling Human Pose Manifolds with Neural Distance Fields
- **Max Planck Institute of Intelligent Systems at Tubingen(Virtual)** February 2021
Learning Size Sensitive 3D Clothing from Real World Data
- **ECCV Virtual** August 2020
Oral Presentation SIZER: A Dataset and Model for Parsing 3D Clothing and Learning Size Sensitive 3D Clothing

AWARDS AND RECOGNITION

- ECCV Best paper Honorable Mention 2022
- CVPR Outstanding Reviewer 2022
- Finalist in International Adobe Research Fellowship Award 2021