

# Chen Guo

AI Research Scientist at Meta  
Dr. sc. ETH Zurich in Computer Science

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## EDUCATION

- ETH Zurich** *Mar. 2022 – Aug. 2025*  
Ph.D. in Computer Science  
Advisor: Prof. [Otmar Hilliges](#) and Prof. [Marc Pollefeys](#)  
Partially funded by Swiss JRC of Microsoft. Industrial Advisor: Dr. [Julien Valentin](#)  
Thesis Committee: [Marc Pollefeys](#), [Yebin Liu](#), [Justus Thies](#), [Julien Valentin](#)
- ETH Zurich** *Sep. 2019 – Feb. 2022*  
M.S. in Robotics, Systems and Control, *GPA: 5.86/6.0* (Distinction)  
Advisor: Prof. [Otmar Hilliges](#) and Prof. [Luc Van Gool](#)
- University of Stuttgart** *Oct. 2016 – Aug. 2019*  
B.S. in Electrical Engineering and Information Technology, *GPA: 1.5/1.0*
- Wuhan University** *Sep. 2014 – Aug. 2019*  
B.E. in Electrical Engineering and Automation, *GPA: 91/100*

## EXPERIENCES

- Meta Reality Labs Research, Pittsburgh, USA** *Dec. 2025 – Present*  
AI Research Scientist  
  - Foundation models for 3D/4D vision
  - Motion-conditioned video generation
- ETH Zurich, Zurich, Switzerland** *Sep. 2025 – Nov. 2025*  
Senior Researcher/Postdoc  
  - Advised PhD and master's students on their research projects.
- Meta Reality Labs Research, Pittsburgh, USA** *Jun. 2024 – Dec. 2024*  
Research Scientist Intern  
Team: [Yaser Sheikh](#) (Manager), [Chen Cao](#), [Shunsuke Saito](#), [Junxuan Li](#)  
  - In-the-Wild Drivable Full-Body Avatars.
- ETH Zurich (AIT Lab), Zurich, Switzerland** *Apr. 2021 – Jul. 2021*  
Research Assistant  
Team: [Otmar Hilliges](#) (Advisor), [Jie Song](#), [Xu Chen](#)  
  - In-the-Wild Human Performance Capture.

## PUBLICATIONS

\* : Equal Contribution ; † : Equal Advisory / Corresponding Author

### Highlighted Publications

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- Gaussian Wardrobe: Compositional 3D Gaussian Avatars for Free-Form Virtual Try-on**  
[Zhiyi Chen\\*](#), [Hsuan-I Ho\\*](#), [Tianjian Jiang](#), [Jie Song](#), [Manuel Kaufmann](#), [Chen Guo](#)<sup>†</sup>  
International Conference on 3D Vision (3DV), 2026.
- Vid2Avatar-Pro: Authentic Avatar from Videos in the Wild via Universal Prior**  
[Chen Guo\\*](#), [Junxuan Li\\*](#), [Yash Kant](#), [Yaser Sheikh](#), [Shunsuke Saito](#)<sup>†</sup>, [Chen Cao](#)<sup>†</sup>  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.
- ReLoo: Reconstructing Humans Dressed in Loose Garments from Monocular Video in the Wild**  
[Chen Guo\\*](#), [Tianjian Jiang\\*](#), [Manuel Kaufmann](#), [Chengwei Zheng](#), [Julien Valentin](#), [Jie Song](#)<sup>†</sup>, [Otmar Hilliges](#)  
European Conference on Computer Vision (ECCV), 2024.

- MultiPly: Reconstruction of Multiple People from Monocular Video in the Wild (*Oral Presentation, Top 3.3%*)  
Zeren Jiang\*, **Chen Guo\***, Manuel Kaufmann, Tianjian Jiang, Julien Valentin, Otmar Hilliges, Jie Song<sup>†</sup>  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024.
- Vid2Avatar: 3D Avatar Reconstruction from Videos in the Wild via Self-supervised Scene Decomposition  
**Chen Guo**, Tianjian Jiang, Xu Chen, Jie Song<sup>†</sup>, Otmar Hilliges  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- X-Avatar: Expressive Human Avatars  
Kaiyue Shen\*, **Chen Guo\***, Manuel Kaufmann, Juan Zarate, Julien Valentin, Jie Song<sup>†</sup>, Otmar Hilliges  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- PINA: Learning a Personalized Implicit Neural Avatar from a Single RGB-D Video Sequence  
Zijian Dong\*, **Chen Guo\***, Jie Song<sup>†</sup>, Xu Chen, Andreas Geiger, Otmar Hilliges  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022.
- Human Performance Capture from Monocular Video in the Wild  
**Chen Guo**, Xu Chen, Jie Song, Otmar Hilliges  
International Conference on 3D Vision (3DV), 2021.

### Other Publications

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- Generalizing Stateful Dynamic Avatars via Latent State Diffusion  
Junxuan Li\*, Jihyun Lee\*, Lingchen Yang, Zhongshi Jiang, **Chen Guo**, Shunsuke Saito  
Under review.
- Mind the Back: Holistic Expressive Avatars from a Single Image  
Zhijing Shao, **Chen Guo**, Xiangru Lin, Yao-Dong Yang, Yun Lu, Zeyu Wang, Jie Song<sup>†</sup>  
Under review.
- OmniCap: Omnidirectional Ego-Exo Motion Capture in the Wild  
Handi Yin, Bonan Liu, Xinyuan Xu, **Chen Guo**, Manuel Kaufmann, Jie Song  
Under review.
- RHINO: Reconstructing Human Interactions with Novel Objects from Monocular Videos  
Lixin Xue, Chengwei Zheng, Georgios Paschalidis, **Chen Guo**, ..., Dimitrios Tzionas  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2026.
- PHD: Personalized 3D Human Body Fitting with Point Diffusion  
Hsuan-I Ho, **Chen Guo**, Po-Chen Wu, ..., Manuel Kaufmann<sup>†</sup>, Linguang Zhang<sup>†</sup>  
International Conference on Computer Vision (ICCV), 2025.
- HSR: Holistic 3D Human-Scene Reconstruction from Monocular Videos  
Lixin Xue, **Chen Guo**, Chengwei Zheng, Fangjinhua Wang, ..., Jie Song<sup>†</sup>, Otmar Hilliges  
European Conference on Computer Vision (ECCV), 2024.
- 4D-DRESS: A 4D Dataset of Real-World Human Clothing With Semantic Annotations (*Highlight, Top 11.9%*)  
Wenbo Wang\*, Hsuan-I Ho\*, **Chen Guo**, ..., Jie Song, Juan Zarate<sup>†</sup>, Otmar Hilliges  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024.
- EMDB: The Electromagnetic Database of Global 3D Human Pose and Shape in the Wild  
Manuel Kaufmann, Jie Song, **Chen Guo**, Kaiyue Shen, ..., Juan Zarate, Otmar Hilliges  
International Conference on Computer Vision (ICCV), 2023.
- Hi4D: 4D Instance Segmentation of Close Human Interaction  
Yifei Yin, **Chen Guo**, Manuel Kaufmann, Juan Zarate, Jie Song, Otmar Hilliges  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- Shape-aware Multi-Person Pose Estimation from Multi-view Images  
Zijian Dong, Jie Song, Xu Chen, **Chen Guo**, Otmar Hilliges  
International Conference on Computer Vision (ICCV), 2021.

## ACADEMIC SERVICES

### Reviewer

Computer Vision: CVPR, ICCV, ECCV, TPAMI, IJCV, 3DV

Computer Graphics: SIGGRAPH, SIGGRAPH Asia, ACM TOG, TVCG  
Machine Learning: NeurIPS

### Organizer

Workshops: [Global 3D Human Poses \(G3P\) Workshop](#)

## AWARDS & HONORS

<b>CVPR Outstanding Reviewer</b>	2025
<b>Microsoft Swiss JRC PhD Fellowship</b>	2022
<b>ETH Scholarship</b>	2020
<b>German National Scholarship (Deutschlandstipendium)</b>	2018, 2019

## DATASETS & OPENSOURCE

**Vid2Avatar:** <https://github.com/MoyGcc/vid2avatar>  
High-fidelity 3D human digitization code from a monocular in-the-wild video  
1.3K stars and 108 forks (as of Sep 2025)

**EMDB Dataset:** <https://ait.ethz.ch/emdb>  
First in-the-wild dataset with accurate SMPL pose/shape and global camerabody trajectories.

**X-Humans Dataset:** <https://ait.ethz.ch/x-avatar>  
First dataset for clothed human capture and modeling with expressive behaviors

**Hi4D Dataset:** <https://ait.ethz.ch/hi4d>  
Dataset of close human interactions with rich multimodal annotations

## INVITED TALKS

Apple, Munich (hosted by <a href="#">Artem Sevastopolsky</a> )	Oct. 2025
Tsinghua University, Beijing (hosted by <a href="#">Yebin Liu</a> )	Sep. 2025
Westlake University, Hangzhou (hosted by <a href="#">Yuliang Xiu</a> )	Aug. 2025
Meta, EMEA, remote (hosted by <a href="#">Shiyang Cheng</a> )	Aug. 2025
Meta, Pittsburgh, remote (hosted by <a href="#">Shunsuke Saito</a> )	Mar. 2025
NVIDIA Research, Santa Clara, remote (hosted by <a href="#">Umar Iqbal</a> )	Dec. 2024
Microsoft Swiss Joint Research Center, Zurich (hosted by <a href="#">Marc Pollefeys</a> )	Apr. 2024
Google Research, Zurich (hosted by <a href="#">Thiemo Alldieck</a> )	Aug. 2023
Adobe Research, San Jose, remote (hosted by <a href="#">Jimei Yang</a> )	Jun. 2023
Microsoft Swiss Joint Research Center, Lausanne (hosted by <a href="#">Marc Pollefeys</a> )	Mar. 2022

## STUDENT MENTORSHIP

[Zhiyi Chen](#), Now: Software Engineer at Google  
Semester Project & Master Thesis (2024 - 2025)

[Wenbo Wang](#), Now: Ph.D. Student at University of Sydney  
Research Intern (2023 - 2024)

[Zeren Jiang](#), Now: Ph.D. Student at Oxford VGG  
Semester Project (2023 - 2024)

[Alessandro Burzio](#), Now: Ph.D. Student at NVIDIA  
Master Thesis (2023 - 2024)

[Kaiyue Shen](#), Now: Deep Learning Engineer at Arbrea Labs AG.  
Master Thesis (2022 - 2023)

## TEACHING

<b>Teaching Assistant</b> , ETH Zurich Machine Perception, lectured by Prof. Otmar Hilliges	Spring 2023, Spring 2024, Spring 2025
<b>Teaching Assistant</b> , ETH Zurich Seminar on Human-Performance Capture, lectured by Dr. Juan Zarate	Spring 2024, Spring 2025
<b>Teaching Assistant</b> , ETH Zurich Advanced Topics in Human-Centric Computer Vision, lectured by Prof. Otmar Hilliges	Fall 2022, Fall 2023
<b>Teaching Assistant</b> , ETH Zurich Computer Science I, lectured by Dr. Manuela Fischer	Fall 2023

**Teaching Assistant**, ETH Zurich

Linear Algebra, lectured by Prof. Olga Sorkine-Hornung

**Teaching Assistant**, University of Stuttgart

Introduction to Programming, lectured by Dr. Christian Senger

*Fall 2022*

*Fall 2017, Fall 2018*

## **SKILLS**

**Language:** Mandarin (native), English (full proficiency), German (full proficiency)

**Programming Language:** Python, C/C++

**Framework:** PyTorch, TensorFlow, NumPy, MATLAB,  $\LaTeX$

**Adobe:** Photoshop, Premiere Pro