

HANNAH SCHIEBER

PH.D. CANDIDATE English (fluent), German (native)

ACADEMIC CAREER

**Human-Centered-Computing and Extended Reality Lab (HEX Lab),
Technical University of Munich (TUM),
Friedrich-Alexander University Erlangen-Nürnberg Erlangen/Munich, Germany**
Ph.D./Researcher 09/2021 - present

- Advisor: Prof. Dr. Daniel Roth
- Research area: Novel view synthesis, 3D reconstruction for XR, 6D pose estimation, synthetic data.
- Selected publications: **J5** at CVIU 2024, **J4** at IEEE RA-L 2024, **C7** at CVPR 2024, **C6** at ACM VRST 2024

Visual Computing Lab, University of Otago Dunedin, New Zealand
Stay Abroad, Visiting PhD 02/2024 - 06/2024

- Advisor: Prof. Dr. Stefanie Zollmann, Prof. Dr. Tobias Langlotz
- Research area: 3D reconstruction for XR with a focus on radiance fields and outdoor datasets creation.
- Publication: **C8** at IEEE VR 2025

EDUCATION

Technische Hochschule Ingolstadt (THI) & AUDI AG Ingolstadt, Germany
Master of Science, Computer Science, Master Dual 10/2019 - 08/2021

- Thesis: Camera and LiDAR based Deep Feature Fusion for 3D Semantic Segmentation
- Publication: **C2** at IEEE IV 2023

Hochschule Aalen Aalen, Germany
Bachelor of Science, Computer Science 10/2015 - 08/2019

- Thesis: Measuring special tools with the Apple ARKit at c-Com GmbH

WORK EXPERIENCE

Master Dual, AUDI AG | Ingolstadt, Germany 10/2019 – 08/2021

- 3D semantic segmentation of sensor data.
- Development of mobile applications for the visualization of vehicle data.

Bachelor Thesis, c-Com GmbH | Aalen, Germany 03/2019 – 08/2019

- Development of mobile applications for the visualization of tool data.

Working Student, Carl Zeiss AG | Oberkochen, Germany 10/2018 – 02/2019

- Development of mobile applications for the visualization of glass data.

Working Student, c-Com GmbH | Aalen, Germany 05/2017 – 08/2018

- Development of mobile applications for the visualization of tool data.

AWARDS AND HONORS

- **Paper Honorable Mention**, ACM Symposium on Virtual Reality Software and Technology, (Publication: **C6**) 2024
- **Paper Highlight**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (Publication: **C7**) 2024
- **First Prize**, Medical Augmented Reality Summer School 2021 (MARSS) (Publication: **A2**) 2021

FUNDING	• d.hip stipend , PhD stipend, Germany	09/2021-01/2024
	• DAAD stipend , Research stipend, New Zealand	02/2024-07/2024
	• d.hip stipend , PhD stipend, Germany	07/2021-12/2024
SELECTED PUBLICATIONS	1. C8: Schieber, H., Young, J., Langlotz, T., Zollmann, S., & Roth, D. Semantics-Controlled Gaussian Splatting for Outdoor Scene Reconstruction and Rendering in Virtual Reality. <i>IEEE International Conference on Virtual Reality and 3D User Interfaces</i>, 2025. 2. J5: Schieber, H., Deuser, F., Egger, B., Oswald, N., & Roth, D. Nerfrinsic four: An end-to-end trainable nerf jointly optimizing diverse intrinsic and extrinsic camera parameters. <i>Computer Vision and Image Understanding</i>, 249, 104206., 2024. 3. J4: Schischka, N.*, Schieber, H.*, Karaoglu, M. A.*, Gorgulu, M., Grötzner, F., Ladikos, A., ... & Busam, B. (2024). DynaMoN: Motion-Aware Fast and Robust Camera Localization for Dynamic Neural Radiance Fields. <i>IEEE Robotics and Automation Letters.</i>, 2024. and <i>IEEE International Conference of Robotics and Automation (IEEE ICRA 2025)</i>. 4. C7: Jung, H.*, Wu, S. C.*, Ruhkamp, P.*, Zhai, G.*, Schieber, H.*, Rizzoli, G., ... & Busam, B. (2024). HouseCat6D-A Large-Scale Multi-Modal Category Level 6D Object Perception Dataset with Household Objects in Realistic Scenarios. <i>In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (pp. 22498-22508).</i>, -HIGHLIGHT CVPR 2024 5. C6: Roth, D., Bräutigam, V., Joshi, N., Kleinbeck, C., Schieber, H., & Kreimeier, J. (2024, October). Neural Motion Tracking: Formative Evaluation of Zero Latency Rendering. <i>In Proceedings of the 30th ACM Symposium on Virtual Reality Software and Technology</i>. -HONORABLE MENTION 6. C2 Schieber, H., Duerr, F., Schoen, T., and Beyerer, J. (2022, June). Deep sensor fusion with pyramid fusion networks for 3D semantic segmentation. <i>In 2022 IEEE Intelligent Vehicles Symposium (IV)</i>.	
* shared first authorship		
complete list of publications: Scholar		
TEACHING AND SUPERVISION	Guest Lectures	
	• XR: Virtual-, Mixed-, and Augmented Reality Technical University of Munich (TUM), Munich, Germany	2024/2025
	• Medical Instrumentation and Computer Aided Surgery, MRI, Technical University of Munich (TUM), Munich, Deutschland	2024/2025
	Seminars	
	• Computer Vision in the Operating Room Technical University of Munich (TUM), Munich, Germany	2024/2025
	• Modern Computer Vision Methods Technical University of Munich (TUM), Munich, Germany	2023/2024
	• Praktikum 3D Computer Vision Technical University of Munich (TUM), Munich, Germany	2023/2024
	• Advanced Topics in 3D Computer Vision Technical University of Munich (TUM), Munich, Germany	2022
	• Advanced Topics in 3D Computer Vision Technical University of Munich (TUM), Munich, Germany	2023
	• Advanced Topics in 3D Computer Vision Technical University of Munich (TUM), Munich, Germany	2025

TEACHING AND
SUPERVISION

Seminars

- **Virtual and Augmented Reality**

Friedrich-Alexander University Erlangen-Nürnberg,

2022/2023

Teaching

- 3 Master Thesis
- 2 Master Projects
- 6 Bachelor Thesis

ACADEMIC
ENGAGEMENT

Program Committee, Posters

Full and short papers: IEEE International Conference on AI & XR and VR (IEEE AIxVR) 2026

Posters: IEEE International Conference on Virtual Reality and 3D User Interfaces 2025

Reviews for:

Conferences

Computer Vision and Computer Graphics

IEEE/CVF International Conference on Computer Vision, Women in CV, 2023

British Machine Vision Conference (BMVC)

IEEE International Conference on AI & XR and VR (IEEE AIxVR)

Augmented, Virtual, and Mixed Reality

IEEE International Symposium on Mixed and Augmented Reality (IEEE ISMAR)

ACM Symposium on Virtual Reality Software and Technology (ACM VRST)

IEEE International Conference on Virtual Reality and 3D User Interfaces (IEEE VR)

IEEE International Conference on Virtual Reality and 3D User Interfaces (IEEE VR)

Robotics

IEEE/RSJ International Conference on Intelligent Robots and Systems (IEEE IROS)

IEEE International Conference on Robotics and Automation (IEEE ICRA)

Journals

Computer Vision and Computer Graphics

Springer Nature The Visual Computer

Elsevier Computer and Graphics

Robotics

IEEE Robotics and Automation Letter (IEEE RA-L)

Augmented, Virtual, and Mixed Reality

Springer Nature International Journal of Virtual Reality

Medical Computer Vision

Springer International Journal of Computer Assisted Radiology and Surgery

IEEE Journal of Biomedical and Health Informatics