

EDUCATION

Technical University of Munich

PhD Student at Visual Computing & AI Lab

Supervisor: Matthias Niessner – Research Topic: Relightable Avatars

Munich, Germany

May 2024 – Present

Technical University of Munich

M.Sc. in Informatics

Final Grade: 1.6 (1.0) – Thesis: Leveraging Foundation Models for Material Generation.

Munich, Germany

April 2021 – January 2024

University of South Australia

Semester Abroad

Final Grade: HD (High-Distinction)

Adelaide, Australia

February 2020 – July 2020

University of Erlangen-Nuremberg

B.Sc. in Computer Science

Final Grade: 2.1 (1.0)

Erlangen, Germany

October 2017 – March 2021

PUBLICATIONS

BecomingLit: Relightable Gaussian Avatars with Hybrid Neural Shading

Jonathan Schmidt, Simon Giebenhain, Matthias Nießner

Project Page: <https://jonathsch.github.io/becominglit/>

NeurIPS

2025

LiDAR View Synthesis for Robust Vehicle Navigation Without Expert Labels

Jonathan Schmidt, Qadeer Khan, Daniel Cremers

Project Page: <https://jonathsch.github.io/lidar-synthesis/>

Best Paper Award Candidate

ITSC

2023

EXPERIENCE

Technical University of Munich

PhD Student

Supervision of 2 Master Students – Teaching 3D Vision Seminar and Advanced Deep Learning Course –
Reviewer at Eurographics 2026

Munich, Germany

May 2024 – Present

University of Erlangen-Nuremberg

Student Assistant Researcher - IT Security Infrastructures Lab

Creation of a dataset for ML-based web-tracking detection. – Implemented a web crawler to index known web trackers and their behavior to Browser APIs.

Erlangen, Germany

September 2020 - March 2021

SELECTED UNIVERSITY PROJECTS

Leveraging Foundation Models for Material Generation

Learning to synthesize PBR materials for untextured shapes – Usage of synthetic images from pre-trained diffusion models instead of real-world data.

Inverse Rendering with Neural Shading

Image-based 3D reconstruction using differentiable Monte-Carlo rendering – Introduction of a neural material model and diffusion-based denoising.

Weakly-supervised 3D Semantic Scene Reconstruction

Learning to reconstruct object instances in a scene without annotated shape pairs – achieved similar quality as state-of-the-art supervised methods.

SKILLS

- **Languages:** English (C1: Full Professional Proficiency), German (Native)
- **Technical Skills:** Python, PyTorch, C/C++/CUDA, Computer Vision, Relighting, (Dynamic) 3D Reconstruction, Avatars, Inverse Rendering, Gaussian Splatting