

Stefan M. Schulz

📍 Bonn, Germany (Open to Relocation) | 📞 +49 151 22497625 | ✉️ StefanM.Schulz@t-online.de
in [stefan-m-schulz](#) | 🌐 [StefanMSchulz](#) | 🎓 [Stefan Schulz](#)

EDUCATION

University of Bonn

12/2024 – 12/2027 (Expected)

PhD in Computer Science (Differentiable Scene Representation for 4D/6D Capture, Reconstruction, and Synthesis)

Bonn, Germany

- Advised by Prof. Matthias B. Hullin; researching efficient real-time novel view synthesis, video compression, and multi-modal reconstruction.

University of Bonn

04/2023 – 10/2024

Master of Science in Computer Science | Grade: 1.4

Bonn, Germany

- Completed semester abroad at **Aalto University, Finland** (08/2023 – 01/2024).
- Thesis adapted into a second-author ICLR conference paper.
- Deutschlandstipendium 2023-2024.

University of Bonn

10/2019 – 03/2023

Bachelor of Science in Computer Science | Grade: 1.3 (Excellent)

Bonn, Germany

- Deutschlandstipendium 2021-2023.

RESEARCH & INDUSTRY EXPERIENCE

University of Bonn

12/2024 – Present

PhD Research Staff

Bonn, Germany

- Co-engineered the physical assembly and software infrastructure for a state-of-the-art, multi-camera light stage.
- Developed an interactive Python/PyTorch diagnostic module for visualization and multi-view perspective switching.
- Programmed procedural Blender pipelines to render accurate synthetic simulation datasets mimicking the capture setup.

University of Bonn

08/2021 – 10/2024

Research Assistant (Computer Vision & Robotics)

Bonn, Germany

- **Robotics (NimbRo Team):** Contributed to the hardware construction and software integration for autonomous humanoid platforms, ensuring optimal system stability and real-time execution; **Won the AdultSize Humanoid League World Championship**, Technical Challenges, and Best-Humanoid honors at RoboCup 2022.
- **Image Inpainting:** Designed and trained partial convolution deep networks for 3D temporal temperature satellite data reconstruction, directly resulting in a co-first-author peer-reviewed publication.
- **Medical CV:** Developed custom instance-aware deep segmentation models for automated structural analysis of medical OCT scans.

University of Bonn

09/2021 – Present

Graduate Teaching Assistant & Team Lead

Bonn, Germany

- Giving lectures, managing tutorial operations, designing competitive examinations, and supervising student instructor teams for large-scale courses of up to 250 students (Technical Informatics and Computer Graphics).
- Completed teaching assistant tenures spanning Data-Centric Computer Science, Computational Intelligence, Intelligent Vision Systems, and Foundations of Robotics.

SELECTED PUBLICATIONS

Peer-Reviewed Publications

Accepted / Published

- N. Wandel, **S. Schulz**, R. Klein. “**Metamizer: a Versatile Neural Optimizer for Fast and Accurate Physics Simulations.**” *International Conference on Learning Representations (ICLR)*, 2025.
 - *Invited Presentation:* Presented the Metamizer project framework at the HiGraphics Workshop (hosted by University of Bayreuth).
- **S. Schulz***, F. Huber*, V. Steinhage. “**Deep Interpolation of Remote Sensing Land Surface Temperature Data with Partial Convolutions.**” *MDPI Sensors*, 2024. (*Equal Contribution)
- D. Pavlichenko, ..., **S. M. Schulz**, et al. “**RoboCup 2022 AdultSize Winner NimbRo.**” *RoboCup World Cup XXV*, Springer, 2023.

Papers Under Review & Conference Pipeline

Current Submissions

- **S. Schulz***, F. Edelstein*, M. B. Hullin, R. Klein. “Aligning the Inverse: Learned Motion Compensation for Gradient-Illumination Appearance Capture.” *Under Review: ACCV 2026*. (*Equal Contribution)
- **S. Schulz**, F. Edelstein, H. Dröge, M. B. Hullin, M. Plack. “3DTV: A Feedforward Interpolation Network for Real-Time View Synthesis.” *Under Review: WACV 2027 (Round 1)*.

- F. Edelstein, **S. Schulz**, M. B. Hullin, M. Plack. "NUTS: Neighbour-based Upscaling Texture Synthesis GAN." *Under Review: NeurIPS 2026*.

Selected Works in Progress

Target Venues (2027)

- **S. Schulz**, F. Edelstein, M. B. Hullin, R. Klein. "Cross-Gaussian Motion Factorization for Rate-Distortion Optimized 4D Gaussian Splatting." *Targeting: WACV 2027 (Round 2)*.
- **S. Schulz***, F. Edelstein*, M. B. Hullin, R. Klein. "Geometry-Aware Source View Selection for Free-Viewpoint Novel View Synthesis." *Targeting: 3DV 2027*. (*Equal Contribution)

TECHNICAL SKILLS & CERTIFICATIONS

Core Expertise: Deep Learning, 3D/4D Scene Reconstruction, Novel View Synthesis (NeRF, Gaussian Splatting, Feed-forward), Video Compression, Generative Models, Computer Vision

Programming Languages: Python, C++

Frameworks & Tools: PyTorch, git, Docker, OpenGL, Blender, $\text{\LaTeX}$, Linux/Bash

Spoken Languages: German (Native), English (C1/Fluent), Spanish (B2), French (B1)

Technical Certifications: [Deep Learning Specialization](#) · [Natural Language Processing Specialization](#) · [Machine Learning Specialization](#) · [Practical Intro to DL for CV](#)

Professional Development & Leadership: [Joint Skills Enhancement \(Intercultural Awareness & Project Management\)](#) · [GUSI Intercultural Training Program \(Global Collaboration & Communication\)](#)