Zhenghao Zhang

📍 Munich, Germany   ⚰ Dec. 1999   🎓 B.Sc. Informatics

🐙 github.com/zhenghao2519   🏠 https://zhenghao2519.github.io/

💼 linkedin.com/in/zhenghao2519   @ zhenghao.zhang@tum.de

🔧 Competences & Languages

Programming	Python, PyTorch, Shell, C++. Git, Docker, Slurm.
Office & Writing	LaTeX, Markdown, Microsoft Office
🔤 **Languages**	English (IELTS 7.0), German (C1), Mandarin (native)

🎓 Education

Oct. 2023	School of CIT, **TU Munich** Master in Informatics	Grade: **1.5** / 4.0
Sep. 2023 Oct. 2019	Faculty of Computer Science, **RWTH Aachen** Bachelor in Informatics	Grade: **2.2** / 4.0
Sep. 2019 Sep. 2018	Freshman Institute, **FH Aachen** Studienkolleg in T-Course	Grade: **1.9** / 4.0

📄 Publications

> P. Li*, **Z. Zhang***, D. Holtz, ... A. Geiger & A. Zell, "*SpaceDrive: Infusing spatial awareness into VLM-based autonomous driving,*" arXiv preprint arXiv:2512.10719, 2025. **(Accepted by CVPR 2026)**

> Y. Mou*, J. Chen*, **Z. Zhang***, J. Roßmann, S. Decker, "*Self-sovereign Identity-based Access Control Management in Forestry 4.0,*" in 10th International Conference on Future Internet of Things and Cloud (FiCloud), 2023.

</> Projects

> **Beyond-Fixed-Forms: Query-aware 3D Instance Segmentation**
Leverage Vision-Language-Models to achieve query-aligned 3D instance segmentation conditioned with arbitrary text inputs. Code released at: *Beyond-Fixed-Forms*.

> **ORganizAR: Medical AR Tool for Operating Room Preparation**
Provide user-friendly guidance for organizing operating rooms. Instructions are given based on scene understanding from open-voc segmentation models. Code released at: *ORganizAR*.

> **Decentralized Access Control in Forestry 4.0**
Explored a decentralized-identity-based access control management system for heterogeneous IoT devices in Forestry 4.0. The project is partially funded by a funding program from the NRW government.

💼 Experience

Now Apr. 2025	Internship at **Mercedes-Benz AG** > 3D spatial awareness in VLM-based AD system.	
Oct. 2025 Nov. 2024	Interdisciplinary Project at **fortiss** > Modality Fusion & VLM-based Autonomous Driving.	
Apr. 2025 Oct. 2024	Research Internship at **Helmholtz Munich** > Parameter-efficient finetuning with LoRA in few-shot and incremental learning.	
Apr. 2025 Jul. 2024	Student Assistant at **TU Munich** > Introduction to Deep Learning by Prof. Matthias Nießner. (2024SS) > Introduction to Deep Learning by Prof. Daniel Cremers. (2024/25WS)	
Sep. 2021 Jul. 2021	Summer Internship at **PERCENT Technology Inc.** > Participate in developing the Clever BI system and create the user manual website.	