Zhenghao Zhang

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

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🔧 Competences & Languages

Programming	Python, Java, C#, Solidity, Shell, C, JavaScript, SQL
Office & Writing	LaTex, Markdown, Microsoft Office
Tools	Git, Conda, SSH, Docker, K8S
Framework & Engine	PyTorch, Unity, Spring, Angular, Flask
🔤 **Languages**	English, German, Mandarin (native), Japanese (introduction)

🎓 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

> 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, pp. 159-166, doi: `10.1109/FiCloud58648.2023.00031`.

</> Projects

> **Query-aware 3D Open-Vocabulary Instance Segmentation**
Leverage Vision-Language-Models to achieve query-aligned 3D instance segmentation conditioned with arbitrary text inputs. This is part of the course "Advanced Deep Learning for Computer Vision" supervised by Prof. Matthias Niessner.

> **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 model. This practical project is supervised by Dr. Ulrich Eck.

> **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 the funding program from the NRW government.

💼 Experiences

Nov. 2024	Interdisciplinary Project at **fortiss GmbH** > End-to-end automated driving enabled by VLM and memory retrieval.
Oct. 2024	Research Internship at **Helmholtz Munich** > Unified framework for adaption methods in vision context.
Jul. 2024	Teaching 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.