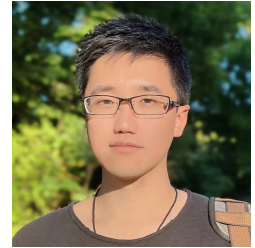


# MENGDI WANG

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🌐 wmd0701.github.io · 🌐 github.com/wmd0701  
Python (deep learning) · C# (Unity)



## EDUCATION

- Technical University of Munich, PhD** 2022.08 - now
- **Group:** Chair of Human-Centered Technologies for Learning 📖 🌐
  - **Focus:** collaborative learning (federated & split learning), vision (style transfer), general deep learning
- ETH Zurich, Master in Computer Science** 2019.09 - 2022.07
- **Key courses:** computational statistics, advanced machine learning, physically-based simulation in computer graphics, probabilistic artificial intelligence, hardware acceleration for data processing
  - **Thesis:** Exploration of Deep Features for Neural Style Transfer 📖 🌐
- Technical University of Munich, Bachelor in Informatics: Games Engineering** 2016.09 - 2019.07
- **Thesis:** Porting MLEM Algorithm for Heterogeneous Systems

## EXPERIENCE

- Technical University of Munich, Chair HCTL, research assistant** 2022.08 - now
- Developed and implemented novel collaborative learning paradigms (TurboSVM-FL and CycleSL) that significantly improve model performance without incurring any client burden or data transfer
  - Developed a novel iris recognition method leveraging style features, demonstrating superior performance and robustness compared to existing approaches, and proposed the use of style transfer for iris privacy preservation
- ETH Zurich, Computer Graphics Laboratory, research student** 2022.02 - 2022.07
- Investigated various factors influencing the 2D-to-3D stylization process utilizing differentiable renderer
  - Proposed guidelines for style feature decomposition and controlling stroke granularity, and introduced a novel way to align reshaping and texturing results

## SELECTED FIRST-AUTHOR PUBLICATIONS

- **Trade-Offs in Privacy-Preserving Eye Tracking Through Iris Obfuscation: A Benchmarking Study.** Proceedings of the 25th International Conference on Digital Signal Processing (2025) 📖 🌐
- **Iris Style Transfer: Enhancing Iris Recognition with Style Features and Privacy Preservation through Neural Style Transfer.** Proceedings of the ACM on Computer Graphics and Interactive Techniques (2025) 📖 🌐
- **TurboSVM-FL: Boosting federated learning through SVM aggregation for lazy clients.** Proceedings of the AAAI Conference on Artificial Intelligence (2024) 📖 🌐

## SELECTED PROJECTS

- CloudVis: Visualized large-scale atmospheric data dynamically in Unity with user interaction 🌐
- SplashyWaves: Implemented water splashing/sloshing in container with position-based dynamics resolver (PBD), allowing large time steps suitable for real-time applications 🌐
- Kings-of-Dominia: Implemented a computer game emulating the physics-based domino toppling game, supporting multiple platforms with touch-screen operations 🌐

## OTHERS

- Languages: Chinese (mother tongue), English (C1), German (B2 - C1)
- Teaching: serious games in XR, recent advances in privacy, introduction to programming and data processing
- Bachelor in Accounting (2011.09 - 2015.07), machine building apprentice (2014.12 - 2015.02), cost accounting internship (2012.07 - 2012.08), Certified Management Accountant (CMA), student performance award for excellent scores on CMA examination (2013)