

ZHENXING MI

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RESEARCH INTEREST

I have broad research interests in multimodal understanding and generation, and 3D / 4D generation and reconstruction. I am currently working on unified generation and reconstruction of 4D worlds.

EDUCATION

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| • The Hong Kong University of Science and Technology
Ph.D. candidate in Computer Science and Engineering
Advisor: Prof. Dan Xu | Feb. 2021 - Mar. 2026 (Expected) |
| • Huazhong University of Science and Technology
M.Sc. in Automation
Advisor: Prof. Wenbing Tao | Sept. 2017 - June 2020 |
| • Huazhong University of Science and Technology
B.Sc. in Control Science and Engineering
Advisor: Prof. Wenbing Tao | Sept. 2013 - June 2017 |

EXPERIENCE

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| • Personalized Generative AI, Snap Research.
Research Intern, Multimodal generation
Mentor: Kuan-Chieh Wang, Guocheng Qian and Kfir Aberman | July. 2024 - Oct 2024 |
| • Applied Research Center (ARC), PCG, Tencent
Research Intern, 3D generation
Mentor: Xintao Wang | Jan. 2024 - May 2024 |

PUBLICATIONS

- **4D World Modeling:**
 - **Zhenxing Mi**, Yuxin Wang, Dan Xu. “One4D: Unified 4D Generation and Reconstruction via Decoupled LoRA Control.”, *Arxiv 2025*.
- **Multimodal Understanding and Generation:**
 - **Zhenxing Mi**, Kuan-Chieh Wang, Guocheng Qian, Hanrong Ye, Runtao Liu, Sergey Tulyakov, Kfir Aberman, Dan Xu. “I Think, Therefore I Diffuse: Enabling Multimodal In-Context Reasoning in Diffusion Models.”, *ICML 2025*.
- **Scalable NeRF via Mixture of Experts (MoE):**
 - **Zhenxing Mi**, and Dan Xu. “Learning Heterogeneous Mixture of Scene Experts for Large-scale Neural Radiance Fields”, *TPAMI 2025*.
 - **Zhenxing Mi**, and Dan Xu. “LeCO²-NeRF: Learning Continuous and Compact Large-Scale Occupancy for Urban Scenes.”, arXiv:2411.11374, *Technical report*.
 - **Zhenxing Mi**, and Dan Xu. “Switch-NeRF: Learning Scene Decomposition with Mixture of Experts for Large-scale Neural Radiance Fields.” *ICLR 2023*.
- **Efficient Multiview Stereo:**
 - **Zhenxing Mi**, Di Chang, and Dan Xu. “Generalized Binary Search Network for Highly-Efficient Multi-View Stereo.” *CVPR 2022*.
- **Scalable Surface Reconstruction Network:**
 - Ganzhangqin Yuan*, Qiancheng Fu*, **Zhenxing Mi***, Yiming Luo*, and Wenbing Tao. “SSRNet: Scalable 3D Surface Reconstruction Network.” *IEEE TVCG 2022*.

- Yiming, Luo*, **Zhenxing Mi***, and Wenbing Tao. “DeepDT: Learning Geometry From Delaunay Triangulation for Surface Reconstruction.” *AAAI 2021*.
- **Zhenxing Mi***, Yiming Luo*, and Wenbing Tao. “SSRNet: Scalable 3D Surface Reconstruction Network.” *CVPR 2020*.