ZHENXING MI

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RESEARCH INTEREST

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

EDUCATION

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

EXPERIENCE

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

PUBLICATIONS

■ **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.", ***ICML2025***.

■ **Scalable NeRF via Mixture of Experts (MoE):**

- **Zhenxing Mi**, and Dan Xu. "Learning Heterogeneous Mixture of Scene Experts for Large-scale Neural Radiance Fields", ***TPAMI2025***.
- **Zhenxing Mi**, and Dan Xu. "LeCO^2-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." ***ICLR2023***.

■ **Efficient Multiview Stereo:**

- **Zhenxing Mi**, Di Chang, and Dan Xu. "Generalized Binary Search Network for Highly-Efficient Multi-View Stereo." ***CVPR2022***.

■ **Scalable Surface Reconstruction Network:**

- Ganzhangqin Yuan*, Qiancheng Fu*, **Zhenxing Mi***, Yiming Luo*, and Wenbing Tao."SSRNet: Scalable 3D Surface Reconstruction Network." ***IEEE TVCG2022***.
- Yiming, Luo*, **Zhenxing Mi***, and Wenbing Tao. "DeepDT: Learning Geometry From Delaunay Triangulation for Surface Reconstruction." ***AAAI2021***.
- **Zhenxing Mi***, Yiming Luo*, and Wenbing Tao. "SSRNet: Scalable 3D Surface Reconstruction Network." ***CVPR2020***.