Mutian Xu (Mino), Ph.D. Candidate

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Education

2021.08 – now
The Chinese University of Hong Kong (Shenzhen), China
Ph.D. Student
– Supervisor: *Prof. Xiaoguang Han*
– Research Area: *Computer Vision, Deep Learning*

2018.09 – 2020.03
University of California, Irvine, USA
M.Sc. in Computer Engineering (GPA: 3.592/4.0)

2014.08 – 2018.06
Xidian University, China
B.Eng. in Radio Wave Propagation and Antenna (GPA: 3.56/4.0)

Experience

2020.06 – 2021.02
CVMI Lab, The University of Hong Kong
Research Assistant
– Advisor: *Prof. Xiaojuan Qi*
– Topic: *3D Point Cloud Convolution*

2019.07 – 2019.11
Multimedia Lab, Shenzhen Institutes of Advanced Technology
Visiting Student
– Advisor: *Prof. Yu Qiao and Dr. Zhipeng Zhou*
– Topic: *3D Object Point Cloud Classification and Segmentation*

2019.04 – 2019.06
University Of California, Irvine
Master Individual Project
– Advisor: *Prof. Charless Fowlkes*
– Topic: *3D Object Reconstrution Based on Structured Light*

Publications *(* denotes equal contribution, † indicates project lead)*

1. **Xu**, **M.**, Yin, X., Qiu, L., Liu, Y., Tong, X., & Han, X. (2024). SAMPro3D: Locating SAM Prompts in 3D for Zero-Shot Instance Segmentation. *In submission, 2024.*
2. Chen, C., Wu, Y., Dai, Q., Zhou, H.-Y., **Xu**, **M.**, Yang, S., … Yu, Y. (2024). A Survey on Graph Neural Networks and Graph Transformers in Computer Vision: A Task-Oriented Perspective. *TPAMI 2024.*
3. Zhang, D. J., **Xu, M.** †, Wu, J. Z., Xue, C., Zhang, W., Han, X., … Shou, M. Z. (2024). Free-ATM: Harnessing Free Attention Masks for Representation Learning on Diffusion-Generated Images. In *ECCV 2024.*
4. Qiu, L., Chen, G., Gu, X., Zuo, Q., **Xu, M.**, Wu, Y., … Han, X. (2024). RichDreamer: A Generalizable Normal-Depth Diffusion Model for Detail Richness in Text-to-3D. In *CVPR 2024,* ***Highlight (2.8%)***.
5. Qiu, L., Chen, G., Zhou, J., **Xu, M.**, Wang, J., & Han, X. (2023). REC-MV: REconstructing 3D Dynamic Cloth from Monucular Videos. In *CVPR 2023.*
6. Xu, M. *., **Xu, M. ***, He, T., Ouyang, W., Wang, Y., Han, X., & Qiao, Y. (2023). MM-3DScene: 3D Scene Understanding by Customizing Masked Modeling with Informative-Preserved Reconstruction and Self-Distilled Consistency. In *CVPR 2023.*

7. Yu, X. *., **Xu, M.** †*, Zhang, Y. *., Liu, H. *., Ye, C. *., Han, X., & *et al.*. (2023). MVImgNet: A Large-scale Dataset of Multi-view Images. In *CVPR 2023,* ***80+ citation***.

8. **Xu, M.**, Chen, P., Liu, H., & Han, X. (2022). TO-Scene: A Large-scale Dataset for Understanding 3D Tabletop Scenes. In *ECCV 2022,* ***Oral Presentation (2.7%)***.

9. **Xu, M.**, Ding, R., Zhao, H., & Qi, X. (2021). PAConv: Position Adaptive Convolution with Dynamic Kernel Assembling on Point Clouds. In *CVPR 2021,* ***400+ citation***.

10. **Xu, M.**, Zhang, J., Zhou, Z., Xu, M., Qi, X., & Qiao, Y. (2021). Learning Geometry-Disentangled Representation for Complementary Understanding of 3D Object Point Cloud. In *AAAI 2021,* ***100+ citation***.

Professional Services

Journal Reviewer — TIP, IJCV, TVCG, NEUCOM, TMM, MVAP

Conference Reviewer — CVPR 23/24, ICCV 21/23, ECCV 24, ICLR 24/25, ICML 24, NeurIPS 23, IJCAI 24, WACV 24/25, ACCV 24

Awards and Certificates

2024 WAIC Youth Outstanding Paper Nomination Award, 2024 (MVImgNet)

2023 **Top Reviewer, NeurIPS 2023 (9.9%)**

Outstanding Reviewer, CVPR 2023 (3.3%)

CCF Excellent Graphics Open-Source Dataset, 2023 (MVImgNet)

2022 Outstanding Teaching Assistant Award of CUHKSZ

2017 TOFEL Test, 104/120

GRE Test, 325/340

Second-class school-level scholarship

2016 Third-class school-level scholarship

Talks

2024 *"Why Do I Need Papers?"*, VALSE Webinar 2024

2023 Outstanding Student Forum of VALSE 2023

Outstanding Student Forum of China 3DV 2023

2022 Youth PhD Talk - ECCV 2022, invited by AI-TIME

Teaching

2023 CSC3002: Introduction to Computer Science: Programming Paradigms

2022 CSC1002: Computational Laboratory

2021 CSC1001: Introduction to Computer Science: Programming Methodology

Previous Mentorship

2022 Pei Chen, M.Phil. at CUHKSZ, now at Ant Group.

Miscellaneous

3rd Place in the 31st School Singer Contest, Xidian University.
Piano Professional Certificate Level 10.