

Mutian Xu (Mino), Ph.D. Candidate

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🌐 <https://mutianxu.github.io/>



Education

- 2021.08 – now  **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 Reconstruction Based on Structured Light

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

In submission

- 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. (2022). A Survey on Graph Neural Networks and Graph Transformers in Computer Vision: A Task-Oriented Perspective. *arXiv preprint arXiv:2209.13232*.

Conference Proceedings

- 1 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*.
- 2 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%)**.
- 3 Qiu, L., Chen, G., Zhou, J., **Xu, M.**, Wang, J., & Han, X. (2023). REC-MV: REconstructing 3D Dynamic Cloth from Monocular Videos. In *CVPR 2023*.

- 4 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*.
- 5 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*, **70+ citation**.
- 6 **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%)**.
- 7 **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**.
- 8 **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

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| Journal Reviewer | ■ TIP, IJCV, TVCG, NEUCOM, TMM, MVAP |
| Conference Reviewer | ■ CVPR 23/24, ICCV 21/23, ECCV 24, ICLR 24, ICML 24, NeurIPS 23, IJCAI 24, WACV 24/25, ACCV 24 |

Certificate

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| 2024 | ■ WAIC Youth Outstanding Paper Nomination Award, 2024 (MVImgNet) |
| 2023 | ■ Top Reviewer, NeurIPS 2023 |
| | ■ Outstanding Reviewer, CVPR 2023 |
| | ■ 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

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| 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

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| 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.