Yiming Xie

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Education

Northeastern University Boston, MA, U.S.
- *Ph.D. Student, Khoury College of Computer Sciences* *Sep. 2021 - Jun. 2026 (expected)*
- *Advisor: Huaizu Jiang*

Zhejiang University Hangzhou, China
- *Bachelor of Opto-Electronics Information Science and Engineering* *Sep. 2015 - June. 2019*
- *Advisor: Xiaowei Zhou*

Work Experience

3D Team, Stability AI Remote
Research Scientist Intern *Feb 2024 - Dec 2024*
Worked with Dr. Varun Jampani, Dr. Chun-Han Yao, and Dr. Vikram Voleti.
Worked on 4D generation.

Reality Labs Research, Meta Redmond, WA, U.S.
Research Scientist Intern *May 2022 - Dec. 2022*
Worked with Dr. Julian Straub, Prof. Georgia Gkioxari, and Dr. Minh Phuoc Vo.
Worked on multi-view 3D object detection.

State Key Laboratory of CAD&CG, Zhejiang University Hangzhou, China
Research Assistant *Mar. 2021 - Aug. 2021*
Worked with Prof. Xiaowei Zhou.
Worked on planar surface reconstruction.

MIG-3D&AR Group, SenseTime Hangzhou, China
Research Intern *Nov. 2018 - Feb. 2021*
Worked with Jiaming Sun and Prof. Xiaowei Zhou.
Worked on 3D scene reconstruction, 3D object detection and tracking, and scene flow estimation.

PrePrints

- Xiaogang Peng*, **Yiming Xie***, Zizhao Wu, Varun Jampani, Deqing Sun, Huaizu Jiang.
  HOI-Diff: Text-Driven Synthesis of 3D Human-Object Interactions using Diffusion Models.
  In Submission, 2024.
  https://neu-vi.github.io/HOI-Diff/

Note: * above denotes equal contribution

Publications

Google Scholar

Conferences

- **Yiming Xie***, Chun-Han Yao*, Vikram Voleti, Huaizu Jiang, Varun Jampani.
  SV4D: Dynamic 3D Content Generation with Multi-Frame and Multi-View Consistency.
  *International Conference on Learning Representations (**ICLR**)*, 2025.
  https://sv4d.github.io/

- Lei Zhong, **Yiming Xie**, Varun Jampani, Deqing Sun, Huaizu Jiang.
  SMooDi: Stylized Motion Diffusion Model.
  *The European Conference on Computer Vision (**ECCV**)*, 2024.
  https://neu-vi.github.io/SMooDi/
- **Yiming Xie**, Varun Jampani, Lei Zhong, Deqing Sun, Huaizu Jiang.
  OmniControl: Control Any Joint at Any Time for Human Motion Generation.
  *International Conference on Learning Representations (**ICLR**)*, 2024.
  https://neu-vi.github.io/omnicontrol/
- **Yiming Xie**, Huaizu Jiang, Georgia Gkioxari, Julian Straub.
  Pixel-Aligned Recurrent Queries for Multi-View 3D Object Detection.
  *International Conference on Computer Vision (**ICCV**)*, 2023.
  https://ymingxie.github.io/parq/
- **Yiming Xie**, Matheus Gadelha, Fengting Yang, Xiaowei Zhou, Huaizu Jiang.
  PlanarRecon: Real-time 3D Plane Detection and Reconstruction from Posed Monocular Videos.
  *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2022.
  https://neu-vi.github.io/planarrecon/
- **Yiming Xie***, Jiaming Sun*, Siyu Zhang, Linghao Chen, Xiaowei Zhou.
  You Don't Only Look Once: Constructing Visuospatial Working Memory for Integrated 3D Object Detection and Tracking.
  *International Conference on Computer Vision (**ICCV**)*, 2021.
  *(**Strong Accept * 2** in final rating)*
  https://zju3dv.github.io/udolo/
- **Yiming Xie***, Jiaming Sun*, Linghao Chen, Xiaowei Zhou.
  NeuralRecon: Real-Time Coherent 3D Reconstruction from Monocular Video.
  *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2021.
  *(**Oral** and **Best Paper Candidate**)*
  https://zju3dv.github.io/neuralrecon/
- Jiaming Sun*, Linghao Chen*, **Yiming Xie**, Siyu Zhang, Qinhong Jiang, Xiaowei Zhou, Hujun Bao.
  Disp R-CNN: Stereo 3D Object Detection via Shape Prior Guided Instance Disparity Estimation.
  *IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)*, 2020.
  https://arxiv.org/abs/2004.03572

Note: * above denotes equal contribution
Journals

- Xi Chen, Jiaming Sun, **Yiming Xie**, Hujun Bao, Xiaowei Zhou.
  NeuralRecon: Real-Time Coherent 3D Scene Reconstruction from Monocular Video.
  *IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2024.
  https://ieeexplore.ieee.org/document/10508111
- Linghao Chen*, Jiaming Sun*, **Yiming Xie**, Siyu Zhang, Qing Shuai, Qinhong Jiang, Guofeng Zhang, Hujun Bao, Xiaowei Zhou.
  Shape Prior Guided Instance Disparity Estimation for 3D Object Detection.
  *IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)*, 2021.
  https://ieeexplore.ieee.org/document/9419782
- Fangrui Zhu, **Yiming Xie**, Weidi Xie, Huaizu Jiang.
  Diagnosing Human-object Interaction Detectors.
  *International Journal of Computer Vision (**IJCV**)*, 2025.
  https://neu-vi.github.io/Diag-HOI/

PROFESSIONAL SERVICE

- Conference Reviewer: CVPR 2023/2024, ICCV 2023, ECCV 2024, NeurIPS 2024

- Journal Reviewer: TVCG, TCSVT, EAAI

TEACHING EXPERIENCE

- Teaching assistant of CS 7150, Deep Learning, Northeastern University *Spring 2022/2023*

TALKS

Dynamic 3D Content Generation. GAMES	*Aug. 2024*
Dynamic 3D Content Generation with Multi-Frame and Multi-View Consistency. BAAI	*Aug. 2024*
NeuralRecon: Real-Time 3D Reconstruction from Monocular Video. CSIG-3DV	*Aug. 2021*
Real-Time 3D Reconstruction from Monocular Video. AI Time	*Apr. 2021*

SKILLS

Programming Languages: C, C++, Python, LaTeX
Technical: Pytorch, Git, Linux, Blender, Final cut pro

HONORS AND AWARDS

Apple Scholars in AI/ML	*2024*
CVPR Best Paper Candidate	*2021*