

YIMING XIE

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EDUCATION

Northeastern University

Boston, MA, U.S.

- *Ph.D. Student, Khoury College of Computer Sciences*
- *Advisor: Huaizu Jiang*

Sep. 2021 - Present

Zhejiang University

Hangzhou, China

- *Bachelor of Opto-Electronics Information Science and Engineering*
- *Advisor: Xiaowei Zhou*

Sep. 2015 - June. 2019

WORK EXPERIENCE

3D Team, Stability AI

Remote

Research Scientist Intern

Feb 2024 - Present

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, 2023.
<https://neu-vi.github.io/HOI-Diff/>
- Fangrui Zhu, **Yiming Xie**, Weidi Xie, Huaizu Jiang.
Diagnosing Human-object Interaction Detectors.
In Submission, 2023.
<https://neu-vi.github.io/Diag-HOI/>
- Aniket Gupta, **Yiming Xie**, Hanumant Singh, Huaizu Jiang.
Direct Superpoints Matching for Robust Point Cloud Registration.
In Submission, 2023.
<https://arxiv.org/pdf/2307.01362.pdf>

Note: * above denotes equal contribution

PUBLICATIONS

Google Scholar

Journals

- 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>

Conferences

- 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

PROFESSIONAL SERVICE

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

TEACHING EXPERIENCE

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

TALKS

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*