

# YIMING XIE

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## EDUCATION

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### 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*

*Sep. 2015 - June. 2019*

## RESEARCH INTERESTS

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My interest lies in computer vision and machine learning with a focus on 3D understanding and reconstruction with a hybrid of geometric and learning-based approaches.

## RESEARCH EXPERIENCE

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### State Key Laboratory of CAD&CG, Zhejiang University

Hangzhou, China

*Research Assistant*

*Mar. 2021 - Aug. 2021*

Supervised by Prof. Xiaowei Zhou

Worked on planar surface reconstruction.

### MIG-3D&AR Group, SenseTime

Hangzhou, China

*Research Intern*

*Nov. 2018 - Feb. 2021*

Supervised by Jiaming Sun and Prof. Xiaowei Zhou

Worked on 3D scene reconstruction, 3D object detection and tracking, and scene flow estimation.

## PUBLICATIONS

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- **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.
- **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/>
- 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>
- 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

## SKILLS

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**Programming Languages:** C, C++, Python, LaTeX

**Technical:** Pytorch, Git, Linux, Blender, Final cut pro

## HONORS AND AWARDS

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Scholarship for Excellence in Arts and Sports

*Dec. 2017*

Excellent Student Cadre

*Jun. 2017*