

Xiangyue Liu

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EDUCATION

Beihang University (University of 985 Project)

Master of Software Engineering

Beijing, China

Score: 84.94, Jun 2021

Northeast Normal University (University of 211 Project)

Bachelor of Software Engineering

Changchun, China

GPA: 3.45, Jun 2018

KEY SKILLS

- Research Interest: 3D Scene Reconstruction, MVS, SLAM, 3D Scene Understanding, Causal Inference
- Programming: C++, Python, Matlab
- Deep Learning: PyTorch, TensorFlow
- Tools: Latex, g2o, Ceres, Eigen, OpenCV

AWARDS AND ACHIEVEMENTS

- Second class scholarship of Northeast Normal University, Oct 2015
- National College Students Innovation and Entrepreneurship Training Program, Dec 2016
- Third class scholarship of Northeast Normal University, Nov 2017
- Third class scholarship of Northeast Normal University, Jun 2018
- Second class scholarship of Beihang University, Oct 2018
- First class scholarship of Beihang University, Oct 2019
- First class scholarship of Beihang University, Jun 2020
- 2nd Place in IJCAI-PRICAI 2020 3D AI Challenge: Instance Segmentation, Oct 2020
- Excellent graduate in Beijing, Jun 2021

EXPERIENCE

National Space Science Center

Beijing, China

○ Research Group Member

Sept 2018 - Sept 2019

- Reconstruct the sky map from under sampled inversion astronomical matrix by using deep learning methods (conditional GANs).

MEGVII Research

Beijing, China

○ SLAM Intern

Aug 2019 - Apr 2020

- Develop new visual Simultaneous Localization and Mapping (SLAM) algorithm.
- Build a ray-point-ray feature-based stereo visual odometry (VO) by C++.

○ 3D Vision Intern

Jun 2021 - Aug 2021

- Do research on Multi-view Stereo (MVS) with deep learning.

Tsinghua University

Beijing, China

○ Visiting Student at IIIS

Jul 2021 - Present

- Do the research about causal inference in dynamic model.

PUBLICATION

TransMVSNet: Global Context-aware Multi-view Stereo Network with Transformers

Under review

Yikang Ding*, Wentao Yuan*, Qingtian Zhu, Haotian Zhang,
Xiangyue Liu, Yuanjiang Wang, Xiao Liu

Structure Reconstruction Using Ray-Point-Ray Features: Representation and Camera Pose Estimation

ICRA 2021

Yijia He*, Xiangyue Liu*, Xiao Liu, Ji Zhao (* Equal Contribution)

2nd Place Solution to Instance Segmentation of IJCAI 3D AI Challenge 2020

IJCAI 2020

Kai Jiang*, Xiangyue Liu*, Zheng Ju*, Xiang Luo (* Equal Contribution)

Workshop

An Optimization Algorithm of Baseline Density Distribution for An Ultra-long Wave Astronomical Observation Array

IAC 2020

Jingwei Yang, Juntao Pu, Xinyi Fei, Xiangyue Liu, You Song, Li Deng

ACTIVITIES

- Oral presentation for the IJCAI-PRICAI 2020 3D AI workshop Jan 2021
- Outstanding student of visual SLAM class at Shenlan School Aug 2019
- Volunteer of the 2nd National SLAM Technology Forum Jul 2019
- League secretary in Software College at Beihang University Sep 2018 - Jun 2021
- Recreation and sports secretary in Software College at NENU Sep 2015 - Jun 2018