

# Xiangyue Liu

Beihang University, Beijing, China

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## EDUCATION

### Beihang University

Master of Software School (Prof. Dr. You Song)

Beijing, China

Present

### Northeast Normal University

Bachelor of Software School

Changchun, China

Jun 2018

## AWARDS AND ACHIEVEMENTS

- Second class scholarship (Changchun, China, 2015)
- Outstanding Project of National Undergraduate Innovation and Entrepreneurship Training Program (Changchun, China, 2016)
- Excellent student of the fifth visual SLAM of Deep Blue College (Beijing, China, 2019)

## KEY SKILLS

- Research Interests: SLAM, AR, 3D Reconstruction, Deep Learning
- Programming: C++, Python, Matlab
- Deep Learning: Pytorch, Tensorflow
- Writing: Latex, Word

## EXPERIENCE

### The 2nd National SLAM Technology Forum

Volunteer of the forum

Beijing, China

Jul 2019 - Jul 2019

### Megvii SLAM&AR Lab

SLAM Research Intern (lead by Yijia He)

Beijing, China

Aug 2019 - Apr 2020

- Do the research on using RPR (structures combining points and lines) in SLAM
- Develop RPR SLAM algorithm
- Write a SLAM system based on point, line, and RPR features

### IJCAI-PRICAI 2020 3D AI Challenge: Instance Segmentation (2/599)

Conference Competition

Beijing, China

Mar 2020 - Aug 2020

- Data analysis, pre-processing, and post-processing
- Do the research on models and tricks
- Implement some models and tricks (eg. MaskRCNN, PointRend, focal loss, TTA, etc)

## Publication

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

ICRA 2021(submitted)

Yijia He\*, Xiangyue Liu\*, Xiao Liu, Ji Zhao

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

IJCAI-PRICAI 2020 workshop

Kai Jiang\*, Xiangyue Liu\*, Zheng Ju\*, Xiang Luo

**SMRGAN: A Sky Map Repair Method Based on GAN for Ultra-long  
Wavelength Astronomical Observation Array**

**Xiangyue Liu**, Juntao Pu, Jingwei Yang, You Song, Li Deng

*Preprint*

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

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

*IAC 2020  
(In coming)*

## **Recommender**

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**Yijia He**

*Mentor during my research intern*

**Lu Sheng**

*Teacher during my postgraduate*

**You Song**

*Mentor during my postgraduate*