



# Youmin Zhang

Jiangxi Province, China

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"Everything happens the best."

## Education

### ETH Zurich

VISITING PH.D. IN COMPUTER VISION AND GEOMETRY GROUP

Zurich, Switzerland

May. 2023 - Nov. 2023

- Topics including: NeRF-based SLAM, NeRF-based Multiview Stereo Matching
- Advisor: Prof.Marc Pollefeys and Dr.Songyou Peng

### University of Bologna

PH.D. IN COMPUTER SCIENCE AND TECHNOLOGY

Bologna, Italy

Nov. 2020 - Feb. 2024

- Topics including: depth sensing, SLAM, stereo matching, depth from a single image
- Supervisor: Prof.Stefano Mattoccia and Prof.Matteo Poggi

### Beihang University

M.S. IN COMPUTER SCIENCE AND TECHNOLOGY

Beijing, China

Sep. 2017 - Jun. 2020

- Thesis: Research and Implementations of Real-time and High Accuracy Binocular Stereo Matching Algorithms
- Supervisor: Prof.Xiao Bai

### Dalian Maritime University

B.S. IN COMMUNICATION ENGINEERING

Dalian, China

Sep. 2013 - Jul. 2017

- GPA: 4.05/5.0
- Ranking: 4/128

## Selected Publications

1. **Youmin Zhang** and Matteo, Poggi and Fabio, Tosi and Stefano, Mattoccia. *GO-SLAM: Global Optimization for Consistent 3D Instant Reconstruction*. Under Review. 2023.
2. **Youmin Zhang** and Matteo, Poggi and Zheng, Zhu and Guan, Huang and Stefano, Mattoccia. *CompletionFormer: Depth Completion with Convolutions and Vision Transformers*. **CVPR**, 2023.
3. **Youmin Zhang** and Matteo, Poggi and Stefano, Mattoccia. *TemporalStereo: Efficient Spatial-Temporal Stereo Matching Network*. arXiv preprint arXiv:2211.13755, 2022.
4. **Youmin Zhang\***, Chaoqiang Zhao\*, Matteo Poggi, Fabio Tosi, Xianda Guo,Zheng Zhu, Guan Huang, Yang Tang, Stefano Mattoccia. *MonoViT: Self-Supervised Monocular Depth Estimation with a Vision Transformer*. **3DV**, 2022.
5. **Youmin Zhang\***, Yimin Chen\*, Xiao Bai, Suihanjin Yu, Kun Yu, Zhiwei Li, and Kuiyuan Yang. *Adaptive Unimodal Cost Volume Filtering for Deep Stereo Matching*. **AAAI**, 2020.
6. Xiaoli Huang, Tongge Xu, Lvan Jiao, Yueran Zu, **Youmin Zhang**. *Adaptive Beam Search Decoding for Discrete Keyphrase Generation*. **AAAI**, 2021.
7. Suihanjin Yu, **Youmin Zhang**, Chen Wang, Xiao Bai, Liang Zhang, Edwin R Hancock. *HMFlow: Hybrid Matching Optical Flow Network for Small and Fast-Moving Objects*. **ICPR**, 2021.

## Work Experience

### Jiangxi Research Institute of Beihang University

RESEARCHER SCIENTIST

Jiangxi, China

Sept. 2020 - April. 2021

- Development and validation of Visual SLAM for robot (TurtleBot2) navigation and scene reconstruction.

### Y-tech, Kuaishou Technology

RESEARCH INTERNSHIP

Beijing, China

Mar. 2020 - Sept. 2020

- Monocular Depth Estimation for Hybrid Augmented Reality.

## Deep Motion

RESEARCH INTERNSHIP, MENTOR: KUIYUAN YANG

*Beijing, China*

*Nov. 2018 - Dec. 2019*

- Studying stereo matching related problems for Automatic Driving.
- Adaptive Unimodal Cost Volume Filtering for Deep Stereo Matching. Accepted to AAAI 2020.

## Honors & Awards

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### INTERNATIONAL

2016 **Silver Medal**, The ACM-ICPC Asia Regional Programming Contest

*Changchun,  
China*

### DOMESTIC

2018-2019 **National Scholarship**, For postgraduates

*China*

2013-2017 **National Motivational Scholarship**, For 4 consecutive years

*China*

2015 **First Prize**, The 2015 ACM-ICPC China Northeast Invitational Programming Contests

*China*

2015 **First Prize**, The 2015 Liaoning Province ACM-ICPC Contest

*China*