Weicai Ye

Curriculum Vitae

*07. March 1996, China
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Education

2018–2023 **PhD, Computer Science**, *Zhejiang University (ZJU)*, China.

(expected) Research Interests: 3D Vision, especially SLAM, 3D Reconstruction, Visual Localization and Scene Understanding. Supervised by *Prof. Guofeng Zhang* and *Prof. Hujun Bao*.

2014–2018 **Bachelor of Computer Software Engineering**, *University of Electronic Science and Technology of China (UESTC)*, China.

National Encouragement Scholarship. Ranked 3rd of 111 Students.

Publications

* denotes equal contribution.

In Conference Proceedings

- 2021 Tianxiang Zhang, Chong Bao, Hongjia Zhai, Jiazhen Xia, **Weicai Ye**, and Guofeng Zhang. ARCargo: Multi-Device Integrated Cargo Loading Management System with Augmented Reality. In *IEEE Cyber Science and Technology Congress* (*CyberSciTech*), 2021.
- 2021 **Weicai Ye**, Hai Li, Tianxiang Zhang, Xiaowei Zhou, Hujun Bao, and Guofeng Zhang. SuperPlane: 3D Plane Detection and Description from a Single Image. In *IEEE Virtual Reality and 3D User Interfaces (VR)*, 2021.
- 2021 Xiangyu Liu, Weicai Ye, Chaoran Tian, Zhaopeng Cui, Hujun Bao, and Guofeng Zhang. Coxgraph: Multi-Robot Collaborative, Globally Consistent, Online Dense Reconstruction System. In IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2021, Best Paper Finalist Award on Safety, Security, and Rescue Robotics in memory of Motohiro Kisoi.
- 2020 Hailin Yu, **Weicai Ye**, Youji Feng, Hujun Bao, and Guofeng Zhang. Learning Bipartite Graph Matching for Robust Visual Localization. In *IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, 2020.
- 2020 Hai Li*, **Weicai Ye***, Guofeng Zhang, Sanyuan Zhang, and Hujun Bao. Saliency Guided Subdivision for Single-View Mesh Reconstruction. In *International Conference on 3D Vision* (*3DV*), 2020.

Work Experience

3D Vision Researcher Intern, SenseTime Group Inc. Hangzhou, China

Jan, 2018 – 3D Reconstruction of Indoor Scene of RGB-D Images.

May,2018 Developed SemanticSLAM system which organically combines the traditional SLAM, semantic segmentation, and plane detection. Different modules cooperate with each other and effectively improve the quality of localization and mapping. The system allows room-scale indoor scenes reconstruction in real-time.

Advisor: **Dr. Hanqing Jiang**, Associate Research Director in SenseTime Group Inc., 3D Reconstruction Team, 3D Vision & Augmented Reality Dept. of Mobile Intelligent Group.

Software Engineer Intern, Baidu Inc. Beijing, China

Feb,2017 - Video Search System.

Jul,2017 Developed millisecond response video search services with colleagues that can support hundreds of millions of highly concurrent retrieval needs. Developed rearrangement strategies, such as video resolution and cross-modal fusion with colleagues, to improve the quality of video retrieval results. The system can retrieve videos related to a given text in real time and the service is available.

Awards & Honors

- 2021 Best Paper Finalist Award on Safety, Security, and Rescue Robotics in memory of Motohiro Kisoi. in IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS).
- 2019 Zhijun He Outstanding Scholarship.
- 2019 Chiang Chen Industrial Charity Foundation Grant.
- 2018 *Champion* of 2018 Cloudwalk Headcount Challenge with 31,500¥ Bonus.
- 2017 *Meritorious Winner* in Mathematical Contest Modeling.
- 2016 *First Prize* in Sichuan Province Contest District in China Undergraduate Mathematical Contest in Modeling.

Skills

Programming Python, C++, CUDA, JAVA, JavaScript/HTML/CSS, LATEX

Library & PyTorch, TensorFlow, Caffe, Unity

Engine

Management Mentored 10+ Junior Researchers at ZJU, WHU, HUST and UCSD, etc.

Services

Conference reviewer: CVPR, AAAI, VR, ISMAR, IROS, BMVC, PRCV, CICAI

Teaching Assistant

Spring, 2021: Computational Photograph