Weicai Ye

Curriculum Vitae

*07. March 1996, China
Colledge of CS
Zhejiang Univerisity (ZJU)
📞 (+41) 779955457
✉ maikeyeweicai@gmail.com
🏠 Homepage
 Github
in Linkedin
🐦 Twitter

▬▬▬ Education

2022.09– 2023.03	**Visiting Researcher, 3D Vision**, *ETH Zurich*, Switzerland. Research Topics: SLAM and Neural Rendering. Advised by Prof. Marc Pollefeys
2018–2023 (expected)	**PhD, Computer Science**, *Zhejiang University (ZJU)*, China. Research Interests: 3D Vision, especially SLAM, 3D Reconstruction, Neural Rendering 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.

▬▬▬ Preprints

IntrinsicNeRF: Learning Intrinsic Neural Radiance Fields for Editable Novel View Synthesis

CVPR2023 **Weicai Ye**, Shuo Chen, Chong Bao, Hujun Bao, Marc Pollefeys, Zhaopeng Cui, and GuofengZhang. homepage, code, arxiv

PVO: Panoptic Visual Odometry

CVPR2023 **Weicai Ye**, Xinyue Lan, Shuo Chen, Yuhang Ming, Xingyuan Yu, Zhaopeng Cui, Hujun Bao, and GuofengZhang. homepage, code, arxiv

PR-SLAM: Simultaneous Localization and Mapping with Planar Reconstruction

CVPR2023 Dong Wu, Haomin Liu, **Weicai Ye**, Longrui Dong, Guofeng Zhang and Hongbin Zha.

DeFlowSLAM: Self-Supervised Scene Motion Decomposition for Dynamic Dense SLAM

TIP2022 **Weicai Ye**, Xingyuan Yu, Xinyue Lan, Yuhang Ming, Jinyu Li, Zhaopeng Cui, Hujun Bao, GuofengZhang. homepage, code, arxiv

iDF-SLAM: End-to-End RGB-D SLAM with Neural Implicit Mapping and Deep Feature Tracking

ICRA2023 Yuhang Ming, **Weicai Ye**, and Andrew Calway. arxiv

Improving Feature-based Visual Localization by Geometry-Aided Matching

TVCG2022 Hailin Yu, Youji Feng, **Weicai Ye**, Mingxuan Jiang, Hujun Bao, and Guofeng Zhang. code, arxiv

Hybrid Tracker with Pixel and Instance for Video Panoptic Segmentation

TCSVT2022 **Weicai Ye**, Xinyue Lan, Ge Su, Zhaopeng Cui, Hujun Bao, and Guofeng Zhang. arxiv

▬▬▬ Publications

* denotes equal contribution.

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.

Awards & Honors

2022 ***Academic Rising Star at Zhejiang University***.

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 ***National Encouragement Scholarship***.

2017 ***Meritorious Winner*** in Mathematical Contest Modeling.

2016 ***First Prize*** in Sichuan Province Contest District in China Undergraduate Mathematical Contest in Modeling.

Internship Experience

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

Jan-May,2018 ***3D Reconstruction of Indoor Scene of RGB-D Images***.
SemanticSLAM which Combines the Traditional SLAM, Semantic Segmentation, and Plane Detection.

Software Engineer Intern, Baidu Inc. Beijing, China

Feb-Jul,2017 ***Video Search System***.
Video Retrieval with Given Text in real-time.

Skills

Programming Python, C++, CUDA, Pytorch, TensorFlow, JAVA, LATEX
Management Mentored 4 Junior Researchers at TUM, PKU, and ZJU.

Services

Conference reviewer: NeurIPS, CVPR, ECCV, ICRA, IROS, VR, ISMAR, AAAI, BMVC

Teaching Assistant

Spring, 2021: Computational Photograph

References

Prof. Marc Pollefeys
Full Professor, Department of
Computer Science
Computer Vision and Geometry Lab (CVG), ETH Zurich
☎ +(41) 446323105
✉ marc.pollefeys@inf.ethz.ch

Prof. Hujun Bao
Cheung Kong Professor, College of
Computer Science
State Key Lab of CAD&CG, Zhejiang University
☎ +(86) 13505813153
✉ baohujun@zju.edu.cn

Prof. Guofeng Zhang
Full Professor, College of
Computer Science
State Key Lab of CAD&CG, Zhejiang University
☎ +(86) 571-88208701
✉ zhangguofeng@zju.edu.cn