

CURRICULUM VITAE

Zhehua Mao (Ph.D. Candidate)

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Research Interests	Simultaneous Localization and Mapping (SLAM), Surgical Robotics, Computer-Assisted Intervention, Medical Image Computing
Education Ph.D. (Aug. 2019-Feb. 2023) M.S. (Sep. 2015-Jun. 2018) B.S. (Sep. 2009-Jun. 2013)	<ul style="list-style-type: none">● University of Technology Sydney (UTS), Sydney, Australia● Precision Instrument and Machinery, University of Science and Technology of China (USTC), Anhui, China● Mechanical Design, Manufacturing and Automation, Hefei University of Technology (HFUT), Anhui, China
Working Experiences (Feb. 2020-Present) (Jul. 2013-Jul.2014)	<ul style="list-style-type: none">● Academic Tutor in University of Technology Sydney (UTS), Sydney, Australia● Research & Development Engineer in Nanjing High Accurate Drive Equipment Manufacturing Group Co., Ltd., Jiangsu, China
Computer Skills	Matlab, Python, C++, CAD software (auto CAD, Solidworks, UG), Ansys, Origin.
Honors & Awards	<ul style="list-style-type: none">● 2022, UTS Faculty of Engineering and Information Technology Research Showcase First Prize for Oral Presentation● 2022, UTS School of Mechanical and Mechatronic Engineering Research Showcase Best Presenter● 2022, UTS Vice Chancellor's Conference Fund● 2022, MICCAI2022 Travel Award● 2019-2023 UTS President's Scholarship● 2018 Excellent Graduate of University of Science and Technology of China● 2017 National Scholarship● 2015, 2016, 2017 Scholarship of Academic Excellence

Academic Activities	<ul style="list-style-type: none"> ● Reviewer of 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2022) ● Reviewer of IROS 2021 ● Session Chair of IROS 2021
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Latest Publications

1. **Zhehua Mao**, Liang Zhao, Shoudong Huang, Yiting Fan, and Alex Pui-Wai Lee, “DSR: Direct Simultaneous Registration for Multiple 3D Images”, in *International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI)*, Springer, Cham, 2022. https://doi.org/10.1007/978-3-031-16446-0_10 (Accept rate: 31%)
2. **Zhehua Mao**, Liang Zhao, Shoudong Huang, Yiting Fan, and Alex Pui-Wai Lee, “Complete Region of Interest Reconstruction by Fusing Multiview Deformable Three-Dimensional Transesophageal Echocardiography Images”, *Med. Phys.*, 2022.
<https://doi.org/10.1002/mp.15910> (IF=4.506)
3. **Zhehua Mao**, Liang Zhao, Shoudong Huang, Yiting Fan, and Alex Pui-Wai Lee, “Direct Bundle Adjustment for 3D Image Fusion with Application to Transesophageal Echocardiography”, in *2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2021.
<https://doi.org/10.1109/IROS51168.2021.9636721> (Accept rate: 45%)
4. Liang Zhao, **Zhehua Mao**, and Shoudong Huang, “Feature-Based SLAM: Why Simultaneous Localisation and Mapping?”, in *Robotics: Science and Systems (RSS)*, 2021.
<https://doi.org/10.15607/rss.2021.xvii.009> (Accept rate: 27%)
5. **Zhehua Mao**, Liang Zhao, Shoudong Huang, Yiting Fan, and Alex Pui-Wai Lee, “Direct 3D Ultrasound Fusion for Transesophageal Echocardiography”, *Comput. Biol. Med.*, vol. 134, no. 104502, p. 104502, 2021.
<https://doi.org/10.1016/j.compbiomed.2021.104502> (IF=6.698)

For more papers published during my master’s degree, please refer to my home webpage on [Google Scholar](#).