

Mike Xiangyu Liu

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EDUCATION

Nanyang Technological University (NTU), Singapore

- M.Sc. in Computer Control and Automation Aug 2018 – Jun 2019
 - Dissertation: Quantitative Trajectory Evaluation Criterion and Long-term Enhancement for Multi-Robot SLAM[4]
 - Adviser: Prof. Danwei Wang
 - Focus: Multi-Robot SLAM, Computer Vision
 - Cumulative GPA: 3.88 / 5.0

University of Electronic Science and Technology of China (UESTC), Chengdu, Sichuan, P.R.China

- B.Mgt. in Electronic Commerce Sep 2014 – Jun 2018
- B.Eng. in Electronic Engineering
 - Dissertation: Research on Organizational Attraction of JD.COM in the era of Smart Logistics [3]
 - Recommended Postgraduate Qualification
 - Cumulative GPA: 3.47 / 4.00

SKILLS

- C/C++, Linux, ROS, Python and Matlab.
- Robotics Perception and Navigation.
- Practical skills on mechanical and electronic design for robotics, and abundant hands-on experience in robot development.

AWARDS & SCHOLARSHIPS

National First Award, in National University Electronics Design Contest (NUEDC), MoE China

- For contest project: panel-ball controlling device Aug 2017

National Champion, in RoboMasters National University Robot Contest, MoE China & DJI

- For contest project: RM series robots. Oct 2015 – Aug 2016

National Bronze Award, in JD X Robot Challenge Contest, JD.COM

- For contest project: Automatic Sorting Robot Apr 2017

Awards and Scholarships, in several university-level contests held in UESTC

Sep 2014 – Jun 2018

Recommended Postgraduate Qualification, in UESTC

- For accumulated outstanding performance in national and provincial contests Sep 2017

PROJECTS

Computer Vision Group, State Key Lab of CAD&CG, Zhejiang University

- Research Assistant Jul 2020 – Apr 2021
 - Project: Multi Robot Localization, Reconstruction and Exploration [5] (**First Author, IROS 2021 Best Paper Award Finalist on Safety, Security, and Rescue Robotics in memory of Motohiro Kiso**)
 - Supervisors: Prof. Guofeng Zhang
 - Focus: Multi-Robot SLAM, Cross-Robot Localization, Dense Reconstruction, Navigation

Robotics ADVANCE Laboratory, NTU

- Master Dissertation Oct 2018 – Apr 2019
 - Project: Place Recognition and Localization for Multi-Robot SLAM [4]
 - Supervisors: Prof. Danwei Wang
 - Focus: SLAM, Multi-Robot SLAM, Computer Vision

RoboMasters Contest Lab, UESTC

- RoboMasters Contest Robot Design Oct 2015 – Aug 2016
 - Project: UAV for RM Contest
 - Supervisors: Prof. Liping He
 - Focus: Robot Contest, Computer Vision, Target Recognition, Item Grabbing
 - Patent: A UAV-mounted lightweight grabbing device[2]

- JDX Robot Challenge [1]

Jan 2017 – Apr 2017

- Project: Auto-sorting robot
 - Supervisors: Prof. Liping He
 - Focus: Robot Contest, 3D Vision, Target Recognition, Item Grabbing

- National University Electronic Design Contest

Aug 2017

- Project: Panel-ball Control Device
 - Supervisors: Prof. Jiexiong Ding
 - Focus: Robot Contest, Target Recognition, Control

JD.COM X Department, JD.COM

- Internship, Embedded Algorithm Engineer Sep 2017 – Dec 2017
 - Project: Auto-Warehouse AGV
 - Work: Joined the R&D group of auto-warehouse AGVs, help to design and debug AGVs for smart logistic application.
 - Focus: Smart Logistics, AGV.

**WORK
EXPERIENCE****Nanyang Technological University, Singapore**

- Research Associate, Robotic Lab Jul 2021 – Now
 - Supervisor: Prof. Danwei Wang

Zhejiang University, Hangzhou, China

- Research Assistant, State Key Lab of CAD&CG, College of Computer Science Jul 2020 – Apr 2021
 - CAD&CG: Computer Aided Design and Computer Graphics
 - Project: Multi Robot Collaborative SLAM
 - Supervisors: Prof. Guofeng Zhang

Nanyang Technological University, Singapore

- Research Associate, NTU-Siemens Cooperative Lab, ERIAN Aborted
 - Before the commence date of the job, my work pass application was rejected by MOM, due to the COVID-19 situation. And as a consequence, the job offer was withdrawn.

**CAMPUS
ACTIVITIES****Work-Zone of Innovation And Entrepreneurship, School of Management and Economics, UESTC**

- Chief Manager Jul 2015 – Sep 2017
 - Improved the talent-training concept and mechanism.
 - Led the team to finish 11 university-level projects, and won over 10 prizes including 3 national and 1 provincial prizes.

Gymguys Training and Fitness Company, Chicago, USA

- Internship Jul 2015 – Aug 2015
 - Marketing work as an assistant of the marketing director.

SMU Entrepreneurship Program, Singapore Management University, Singapore

- Course Program Jan 2016 – Feb 2016
 - Attended SMU entrepreneurship courses, including innovation mind, entrepreneurship management, and team management, etc.
 - Finished the business plan training program with the entrepreneurship idea of “THE LAST MILE”, which was focusing on problems of O2O delivery.

LANGUAGES

- Chinese: Native speaker.
- English: Fluent (IELTS: 8(7)).

REFERENCES

- **Dr Danwei WANG, Professor**

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- **Dr Guofeng ZHANG, Professor**

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- **Dr Zhaopeng Cui, Research Professor**

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PUBLICATIONS

- [1]J. Chen, **X. Liu**, S. Wu, X. Ren, and Z. Zhang. Technical report of auto-sorting robot in jdx robot challenge (only in chinese). Technical report, University of Eletronic Science and Technology of China, 10.13140/RG.2.2.24865.22881, 2017.
- [2]Yijie Qu, **Xiangyu Liu**, and JiaXiang Xu. Patent: A uav-mounted lightweight grabbing device. *Patent No. CN201710174508.7*, 2016.
- [3]**Xiangyu Liu**. Research on organizational attraction of jd.com in the era of smart logistics (only in chinese). Bechalor Thesis, University of Eletronic Science and Technology of China, 10.13140/RG.2.2.34092.69760, 2018.
- [4]**Xiangyu Liu**. Quantitative trajectory evaluation criterion and long-term enhancement for multi-robot slam. Master’s thesis, Nanyang Technological University Singapore, 10.13140/RG.2.2.14698.88002, 2019.
- [5]**Xiangyu Liu**, Weicai Ye, Chaoran Tian, Zhaopeng Cui, Guofeng Zhang, and Hujun Bao. Coxgraph: Multi-robot collaborative, globally consistent, online dense reconstruction system. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2021. Best Paper Award Finalist on Safety, Security, and Rescue Robotics.