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[3]
  - 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 [2]
  - Recommended Postgraduate Qualification,
  - Cumulative GPA: 3.47 / 4.00

SKILLS
- Excellent in C/C++, Linux, ROS; Skilled in Python, Matlab.
- Excellent in robotics perception and navigation.
- Good understanding in neural network, course-attending in control theory, control network, etc.
- 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
  - 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 [3]
  - 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
- 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 Recognization, 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: 6.5(6)).

REFERENCES
- **Dr Danwei WANG, Professor**
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  Nanyang Technological University, Nanyang Avenue, Singapore 639798
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- **Dr Liping HE, Professor**
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PUBLICATIONS

[1]X. Liu, J. Chen, 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]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.

[3]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.