ZHIJIE YANG

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EDUCATION

Technical University of Munich November 2020 - Present
M.Sc. in Informatics
Department of Informatics

ShanghaiTech University August 2017 - July 2020
B.E. in Computer Science and Technology
School of Information Science and Technology GPA: 3.18
Expected Graduation: July 2020

ShanghaiTech University August 2016 - July 2017
B.S. in Bioscience
School of Life Science and Technology

RESEARCH PROJECTS

Towards Generation and Evaluation of Comprehensive Mapping Robot Datasets
This project consists of building an autonomous robot system with various heterogeneous sensors to precept the surroundings and generating datasets for SLAM algorithm benchmarks and experiments. Advisor: Prof. Sören Schwertfeger [i]. [1][2]

Mapping with Reflection – Detection and Utilization of Reflection in 3D Lidar Scans
This project aimed at detecting the reflecting surfaces with 3D Lidar and used it to map the backside of objects. Advisor: Prof. Sören Schwertfeger [i]. [3]

Accelerating JPEG compressing on ARM processor with SIMD and multithreading.
This is the course project of Computer Architecture III. In this project we implemented a dedicated ARM-based single board computer as the camera front end to transmit compressed image sequences to the upper computer with lower price and energy consumption. Advisor: Shu Yin [ii].

TECHNICAL STRENGTHS

Modeling and Analysis: SOLIDWORKS
Programming Languages: C, C++, Python, MATLAB, RISC-V, G code and Heidenhain
Systems: Robot Operating System (ROS) and Linux
Amateur Radio Callsign: BH4ETE

WORK EXPERIENCE

School of Information Science and Technology
Research Assistant August 2020 - January 2021
Teaching Assistant for Computer Architecture I January 2019 - June 2019
Teaching Assistant for Operating System I September 2019 - January 2020
Teaching Assistant for Intro. to Information Science and Technology B February 2020 - July 2020

Stereye Co., Ltd. April 2019 - Present
Internship as R&D Engineer.

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[i] https://robotics.shanghaitech.edu.cn/people/soeren
[ii] http://lion.sist.shanghaitech.edu.cn/people.html

AWARDS

RoboCup Rescue China
· The third prize.   April 2018
· The first prize.   April 2019

Robomaster
· The third prize of China Central Regional.   May 2018
· The second prize of China Northern Regional.   June 2019

Challenge Cup Shanghai Final
· The first prize.   May 2019

Merit Student of Academic Year 2017-2018   November 2018
Merit Student of Academic Year 2018-2019   November 2019

SERVICES

2015 Shanghai Sister Cities Youth Camp Volunteer   July 2015
2019 Shanghai Sister Cities Youth Camp Volunteer Director   July 2019
Shanghai Metro Volunteer   Since September 2014
· 345 hours service time.

LANGUAGES

Chinese Mandarin   Native Speaker
English   Proficient Speaker
· TOEFL: 102, Reading 27, Listening 28, Speaking 23, Writing 24
· GRE: 322, Verbal 155, Quantitative 167, Writing 3.5

German   Beginner

Publications

[1]   Hongyu Chen et al. "Advanced mapping robot and high-resolution dataset". In: *Robotics and Autonomous Systems* (2020), p. 103559. ISSN: 0921-8890. DOI: https://doi.org/10.1016/j.robot.2020.103559. URL: http://www.sciencedirect.com/science/article/pii/S0921889020303997.

[2]   Hongyu Chen et al. *Towards Generation and Evaluation of Comprehensive Mapping Robot Datasets*. In Workshop on Dataset Generation and Benchmarking of SLAM Algorithms for Robotics and VR/AR, 2019 IEEE International Conference on Robotics and Automation (ICRA). 2019. arXiv: 1905.09483 [cs.RO]. URL: https://arxiv.org/abs/1905.09483.

[3]   Xiting Zhao, Zhijie Yang, and Sören Schwertfeger. "Mapping with Reflection - Detection and Utilization of Reflection in 3D Lidar Scans". In: *2020 IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR)*. 2020, pp. 27–33. DOI: 10.1109/SSRR50563.2020.9292595.