ZHIJIE YANG

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EDUCATION

ShanghaiTech University   August 2017 - Present
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

Shanghai No. 4 High School   September 2013 - June 2016
Shanghai No. 54 High School   September 2009 - June 2013
The First Primary School of GaoAn Road   September 2004 - June 2009

RESEARCH INTERESTS

- Mobile robots
- Robot perception

RESEARCH PROJECTS

Improving RSSI with Directional Antenna and AoA Estimation
This is the course project of Wireless and Mobile Systems. We used channel state information and MUSIC algorithm with omnidirectional antennas to estimate the arrive angle of WiFi signals and adjusted the direction of directional antennas to obtain a gain in signal strength. Advisor: Prof. Zhice Yang [i].

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 [ii]. [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 [ii]. [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 [iii].

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

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

WORK EXPERIENCE

School of Information Science and Technology

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 - Present

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

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

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.

Director of MSMVU (a metro volunteer union) Since January 2016

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.* Submitted to Robotics and Autonomous Systems. 2019. URL: https://robotics.shanghaitech.edu.cn/static/mapping_robot.pdf.

[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.* Submitted to IEEE Conference on Robotics and Automation (ICRA) 2020. 2019. arXiv: 1909.12483 [cs.RO]. URL: https://arxiv.org/abs/1909.12483.