



## Hu Ziqi

📍 Artificial Intelligent college, Nankai University, Tianjin, China

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🌐 <http://github.com/huziqi>

Born date: 18th March, 1998

### EDUCATION

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2020 – present

Master's degree in Nankai University, Control Science and Engineering

2016 – 2020

Bachelors's degree in Nankai University, Intelligent Science and Engineering

### PAPERS

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- [1] Z. Hu, Z. Fan, C. Liu, Y. Wu and C. Wang, "Geometrical Patterns Based Cross-scale Image Registration for AFM and Optical Microscopy," 2019 IEEE International Conference on Manipulation, Manufacturing and Measurement on the Nanoscale (3M-NANO), 2019, pp. 276-280.  
获得 2019 年 "IEEE International Conference on 3M-NANO" 最佳应用论文入围奖
- [2] 胡子琦, 苑晶, 公岩松, 俞诗卓, 张雪波, 面向配网带电作业机器人的输电线引线重建, 控制工程, 2021.
- [3] 武毅男, 方勇纯, 樊志, 王超, 刘存恒, 胡子琦, 基于几何特征相似度评价的跨尺度显微图像配准, 控制理论与应用, 2020, 37(09): 1913-1922.

### PROJECTS

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2021.3 – 2021.6

**Environment perception of Live-line working robot in distribution networks cooperated with State Grid Corporation of China**

Tianjin, China

- The objective of the project is to precisely perceive the environment using 3D Lidar on self-designed robot platform, which further assistants robot arm to connect leading wires with the transmission line. My part is in charge of point cloud 3D reconstruction of leading wires and middle detection of telegraph pole cross arm.

2019.9 – 2019.12

**Internship of Haihua Institute for Frontier Information Technology**

Beijing, China

- In participation in data collection and subjects design of AI challenge competition.
- Technique work includes multi-classification of daily garbage using CNN neural network and Multiple objects detection using popular algorithm.

2018.10.17 – 2018.10.21

## World Robot Summit

Tokyo, Japan

- In charge of the simulation project as the leader of the team.
- In the Handyman project, we make the robot fetch the staffs in unknown environment under human's commands, which are all built in Unity simulation environment. The project involves visual recognition, navigation and arm control of the robot.
- In the Human navigation project, we make the avatar search specific objects in the unknown room by generating guiding sentences using VR devices.

2018.8.15 – 2018.8.21

## Internship of Tamagawa University of Japan

Machida, Japan

- In professor Hiroyuki Okada's lab, I learned how to develop Tokyo HSR robot, and visual perception based on point cloud experience.

2018.8 – 2018.9

## Internship of National Institute of Informatics of Japan

Tokyo, Japan

- In participation of development of SIGVerse platform for robot simulation under the guidance of professor Inamura, obtaining experience of Unity simulation development.

2017.12.12 – 2017.12.18

## RoboCup Asia-Pacific Open Competition

Bangkok, Thailand

- Achieve the champion of @ home session as the leader of the team.
- I'm in charge of navigation part development. We utilize ROS platform achieving body following, set point navigation and speech interaction of the robot.

## AWARDS

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### Competition

2017 second reward of engineering robot competition China  
2018 Champion of @Home session of RoboCup Asia-Pacific Open  
2018 second place of @Home session of RoboCup Japan Open

### School

2016-2017 First reward scholarship of Nankai University  
2017-2018 Innovation price of Nankai University  
2017-2018 Academic excellence price of Nankai University  
2020 Second price of master entrance of Nankai University  
Outstanding price of graduation project of Bachelor's degree

## SKILLS

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### Language

English(CET6): 514

### Programming Skill

I'm skilled at C/C++/C#, MatLab, Python and Linux programming. I'm also have a great wealth of experience in ROS development. Meanwhile, I'm familiar with the simulation environment development in Unity VR.

### Professional Knowledge

I'm skilled at SLAM and popular algorithms which obtained from rich experience of monocular SLAM development. I'm also familiar with the machine learning, deep learning development, process of lidar point cloud and lidar-camera parameter calibration.