Zhifeng Hong

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EDUCATION

Northwestern Polytechnical University Sep 2019 - Jun 2023

Software engineering Bachelor School of Software

- GPA:3.781, ranking 3/285(Top 1.05%, first five terms)
- Comprehensive evaluation ranked: 4/285(Top 1.40%)

HONORS & AWARDS

2020 National scholarship

2020 Outstanding students of Northwestern Polytechnical University(First Class Scholarship, Top 5%)

2021 Wu Yajun special scholarship(Scholarship awarded to 3rd student except those who won the National Scholarship)

2021 Outstanding students of Northwestern Polytechnical University(First Class Scholarship, Top 5%)

3rd place in China Robot Competition UAV Challenge Target Identification Project(National) Nov 2020

2nd prize in National Robot Championship Intelligent Operation Competition of Aerial Robot Jan 2021

3rd prize in 2021 RoboMaster University AI Challenge(National) Apr 2021

3rd prize(Successful Participant) in 2021 Interdisciplinary Contest In Modeling(International) Apr 2021

PROJECT EXPERIENCE

2020 China Robot Competition UAV Challenge Feb 2020 - Nov 2021

Core member responsible for visual works

- Responsible for all target recognition tasks of three sub-events(UAV Delivery, UAV Target Identification, and UAV Cruise) and help our team to 3rd place in UAV Delivery and UAV Target Identification.
- Use C++ and Python as programming languages, combined with OpenCV vision library, ROS, traditional vision algorithms and deep learning techniques to solve problems.
- Solve the problems of camera ranging, world coordinate conversion, target recognition and positioning, QR code identification, communication between visual node and UAV strategy center, etc.

2021 RoboMaster University AI Challenge Oct 2020 - Apr 2021

Visual team member

- Wrote half of the competition visual technical proposal and technical report, in which a method of using open source 3D vision algorithm for pose recognition is proposed to predict the movement of enemy. Finally, our technical proposal won the 2nd prize.
- Solve the problem of the visual code deployment environment on the airborne platform and the communication between the two visual nodes.

National Undergraduate Training Program for Innovation and Entrepreneurship May 2021 - Present

Project manager

- As the project manager, I was responsible for the selection of the project topic, the writing of most of the project opening application, and the opening defense. Finally our project was recognized as a national project.
- Our project is called a surveillance system with multi-camera access and intelligent warning function, we propose to combine face recognition and gait recognition technology to develop a surveillance system to warn strangers in a more intelligent way.

SKILLS

- Proficient in using C++, Java and Python for object-oriented programming and project development.
- Familiar with the use of Linux operating system, ROS, OpenCV, Docker, Git and other tools.
- Familiar with the porcess of dataset labeling, training, deployment and use of some open source neural network framework.
- Knowledge of robot software architecture and how to deploy and debug vision code on the robot.