

# Xinyu Luo

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## EDUCATION

**Northwestern Polytechnical University**

Sep 2019 - Jun 2023

Software Engineering Bachelor

- GPA: 3.573 ranked : 25/283 (first five terms)
- Comprehensive evaluation ranked: 10/283 (first five terms)
- CET6:530 TOEFL:94

## SKILLS LIST

- Proficient in using C++, Java and Python for project development, object-oriented programming;
- Master the basics of deep learning machine learning, and can use pytorch, tensorflow development frameworks proficiently;
- Familiar with Linux, especially the use of Ubuntu;
- Familiar with ROS operating system, able to use Gazebo, Docker , GRPC, CMAKE and other tools;
- Familiar with Git tools, rich experience in team management and cooperative development;
- Proficiency in Java, Jsp, html for web development;

## PROJECT EXPERIENCE

**China Robot Competition UAV Challenge - Participating Team**

Nov 2020 - Apr 2022

Major Member

In the UAV Challenge, drones are required to complete tasks such as autonomous flight, trajectory planning, target identification, positioning, and motion planning.

- I am in charge of the drone movement planning module, controlling the drone movement selection and logic control throughout the process.
- Proficiency in ROS operating system and mavros, issuing control commands to the inferior machine.

**Soccer Training Assistant System Based on UAV (Excellent Conclusion of National College Students' Innovation Training Projects)**

Apr 2020 - Apr 2021

Member

The purpose of this project is to establish a UAV system that can assist soccer training, which can record the game autonomously and display the information of court.

- Participate in the construction of UAV, related implementation of obstacle avoidance module, communication module, and behavior planning. These functions are the basis of UAV Systems.
- Complete the object detection algorithm module and related interface implementations. This project uses the pre-trained YOLOV5-s model and then trains it in soccer field datasets to achieve high precision.

**Drone control platform development**

major member

This is a web-side platform for planning the behavioral actions of the drone when flying autonomously. Using web-side control can eliminate the trouble of environment configuration, and there is no need to recompile the web-side after setting the behavioral target, and it can take off after pressing the button.

- I am responsible for encapsulating the underlying behavior of the aircraft to facilitate front-end call selection.
- Communicate with the front-end code through grpc, pass the received messages to the ROS node, and write the interface to receive action messages at the control node.

### **FairyHR: A Web-based Human Resource Management System**

major member

A web page can realize the management of departments and department personnel and the functions of work check-in, leave application and approval.

- I wrote part of the front-end interface code, mainly html, css, bootstraps layout
- The back-end running logic part of the code, using java and jsp to achieve( the front and back end is not separated)

## **HONORS & AWARDS**

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2021 National Scholarship Of Northwestern Polytechnic University

2021 Outstanding students of Northwestern Polytechnic University (First Class Scholarship)

First prize in the National Robotics Championship Aerial Flight Robot Competition 2020.12

Second Prize of Robotics Innovation Competition of China Robotics and Artificial Intelligence Competition 2020.12

Second Prize of China Robotics Drone Challenge 2020.11 & 2022.4

First Price National Robotics Championship Simulation-based Robot Soccer Tournament: 11v11 2021.10

And other competition awards

## **SCHOOL ACTIVITY**

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**Shaanxi History Museum Student Volunteers** Apr 2020 - Mar 2022

- I have 150+ annual volunteer hours as a museum volunteer at the Shaanxi History Museum, providing interpretation and service to visitors in the museum.
- I won the title of Most Promising Volunteer in Shaanxi History Museum in 2022
- I have held the position of New Media Operation in Shaanxi History Museum in 2020-2021, and I was responsible for the operation of the official Weibo account together with my team.

**A member of the college swimming team of Northwestern Polytechnical University**

- won second place in the school backstroke competition in 2021

**Active participation in various activities and competitions within the school**

- Social Practice Activities、E-commerce competition、Painting flower pot activity and so on.