




# Yaxuan Wang

 yizhixiao Zhu24@gmail.com  supergirl-os.github.io  github.com/supergirl-os

## Education

### Sichuan University

Computer Science(Top-notch Program) 3.85/4 GPA

2019.09-Present

IELTS 7.0

**Coursework:** Data Structures/Algorithms, Discrete Math, Statistics/Probability, Robotics Programming with ROS, Introduction to Deep Learning, Introduction to Pattern Recognition

**Activities:** Team Leader of The RoboMaster University AI Challenge, president of 3D Printing Association

## Research

### Weakly Supervised Learning Combined with Temporal Anomaly Detection

2022.05-Present

- We introduce a weakly supervised approach to the field of temporal anomaly detection in order to obtain better performance using fewer labels.

### Research on Urban Safety Perception using RL and IRL

2021.10-2022.06

- Propose a novel inverse reinforcement learning (IRL) based framework for predicting the level of perceptual safety of urban street scenes and recovering the reward function that can explain the evaluation pattern. We also present a scalable state representation method for modeling the prediction problem as a Markov decision process (MDP) and using reinforcement learning to solve the problem.
- There are currently **two related papers under review**.

### Application Research of Artificial Intelligence Technology Based on CBCT to Automatically Determine Alveolar Bone Density

2021.10-2022.06

- Design a medical image segmentation network to obtain the position of alveolar bone from oral CBCT images. And study the effect of alveolar bone density on orthodontics.

### Autonomous Robot Shooting and Movement in Specific Maps

2021.09-2022.05

- Based on visual perception and Cost map, we used behaviour tree to realize intelligent decision-making of the automatic robot. So the robot can move and shoot on a specific map.
- Our results won the **ICRA RMUA International Third Prize**

### Portable Vision Integrated Real-time Detection and Tracking System for Rare Animals

2020.10-2021.09

- A gimbal-based portable system is designed to carry a real-time target detection and tracking system with high robustness.
- Responsible for the research of target tracking algorithm based on optical flow method.

## Skills

- Programming Languages: Python, Java, C++
- Web Technologies: HTML, CSS, JavaScript
- ML/AI: PyTorch, NumPy, Pandas, Matplotlib
- Miscellaneous: MySQL, data analysis, Linux, Git, Latex

## Awards

The RoboMaster 2022 University AI Challenge - International Third Prize	2022
National Scholarship CK Power Scholarship School-level first-class scholarship	2021
The 14th China University Student Computer Design Competition - National First Prize	2021
The RoboMaster University Championship - South Division First Prize	2021
The RoboMaster University League - Provincial First Prize	2021
Outstanding Student of Sichuan University	2020
Outstanding Cadre of Sichuan University Library Volunteer Team	2020
The Eighth Sichuan University Student Engineering Training Comprehensive Ability Competition - First Prize at School Level	2020
Second Prize of College-level English Speech Contest of Electrical Engineering	2019