

Zhixu Yue

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EDUCATION

Southwest University, Chongqing

Sep.2023 - Present

Second Year in Automation, School of Computer and Information Science, School of Software

- GPA: 87.04/100 & 4.0/5.0
- Ranking: 1/99

EXPERIENCE

Research on Chongqing Zhongke Automotive Software Innovation Center

Chongqing

Project leader

Jun.2024 - Aug.2024

Project name: Indoor Localization of Quadrotor UAV Based on Visual SLAM

- Assembled the drone by soldering and integrating hardware components such as Pixhawk 4 flight controller and Jetson Orin NX onboard computer; flashed PX4 firmware onto the flight controller, tuned PID parameters, and conducted takeoff testing.
- Deployed the ORB-SLAM algorithm on the onboard computer and performed debugging and adaptation using the official dataset.
- Remotely controlled the drone's flight and used the ROS2 system to interface with the depth camera. Applied the ORB_SLAM algorithm to perform sparse 3D reconstruction of the surrounding environment, and used Octomap tools and PCL algorithms to convert the point cloud into a 3D map.

Research on Southwest University

Chongqing

Project leader

Jul.2024 - Aug.2024

Project name: Design and Production of a Tic-Tac-Toe Game Human-Computer Interaction Device

- Used Stm32f1c8t6 microcontroller as the main control module, deployed Tic-Tac-Toe game algorithm, controlled the movement direction and distance of the robotic arm, and communicated with the vision module.
- Assembled a three-axis robotic arm using TB6600 motor driver, HGX28 stepper motor, and electromagnetic module; controlled by the main control module to grab and move the game pieces.
- Used Openmv as the vision module, programmed and debugged threshold values to real-time recognize the positions of black and white game pieces, and communicated with the microcontroller via serial port.

AWARDS

- **National Scholarship** (¥10000, Top1%) *Oct.2024*
- **First Prize** in Chongqing of China Undergraduate Mathematical Contest in Modeling *Sep.2024*
- **Meritorious Winner** of American Mathematical Contest in Modeling (MCM) *May.2024*
- **Second Prize** of TI Cup Chongqing College Student Electronic Design Competition *Aug.2024*
- **First Prize** of Digital and Physical Integration Intelligent Algorithm Challenge *Aug.2024*

SKILLS

Programming Python, C, Matlab, PLC

Systems and Software Linux, ROS/ROS2, Isaac sim, Multisim, keil5, Solidworks, etc.