

Guanjie Chen

[Github](#)

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TECHNICAL SKILLS

Languages : python/cython, matlab, c/c++, java, c sharp

Tools : pytorch, ros2, git, cmake, Altium Designer

EDUCATION

Xi'an Jiaotong University
Bachelor of Automation
GPA: 84.68/100 toefl:90

Faculty of Electronic and Information Engineering
Sep 2019 – Jul 2023

EXPERIENCE

Robot Core Developer

Oct 2021 – Aug 2022

The 10th National College Mechanical Innovation Competition

- Design a circuit board based on esp32-s3 chip and develop its drivers to control up to 18 Actuators
- Convert CPG program from MATLAB to C++ code and deploy it on embedded device
- Develop a desktop application using Qt for wireless control of the robot.
- Use MediaPipe and OpenCV to process visual information for target tracking and motion recognition

Hardware Designer

Aug 2021 – Jul 2022

The 21st ABU Robocon

- Design a circuit board based on stm32f405rct chip with its firmware
- Migrate the Embedded development environment to CubeMX
- Build a new toolchain for stm32 project using GCC rather than Armcc

Architect of Embedded System Design

Sep 2020 – Aug 2021

The 20th ABU Robocon

- Develop a task-based scheduler system based on UC/OS
- Use DMA and queue to optimize the serial communication
- Develop a desktop application using c sharp for robot control
- Construct a visual system that processes information from binocular cameras to Track target.

PROJECT

- Use **cython** to speed up python code
- Customize tensor operators in C++ and built python module
- Manage and schedule GPUs clusters with **OpenPAI**
- Deploy **NNI** for automated machine learning and parameter tuning

AWARDS

- The 10th National College Mechanical Innovation Competition **National First Prize**
- The 21st ABU Robocon **National Second Prize**
- The 20th ABU Robocon **National Third Prize**
- The Academic Elite Program Scholarship