# **Shi Yulong**

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#### **EDUCATION**

# **Guilin University Of Electronic Technology**

09/2019-Present

B. S. in Engineering; Major in measurement and control technology and instrument

Rank 2/178

**Selected Courses**: Fundamentals of Analog Electronics, C Language Programming, Advanced Mathematics, College Physics, Fundamentals of Circuit Analysis, Fundamental Theory of Digital Circuit, High-Frenquency Electronic Circuit, Electromagnetic field theory, Fundamentals of Automatic Control

**Scholarship** 

National Encouragement Scholarship

Guangxi Autonomous Region Government Scholarship

First prize scholarship of Guilin University Of Electronic Technology

School of Electronic Engineering and Automation's Brilliant Scholarship

Excellent Campus Ambassador of HiSilicon Technology Co., Ltd

**Competition And Honor** 

Excellence Award of National Lanqiao Cup Program Design Competition

The Most Outstanding Sudent (Spring 2021 & Fall 2020)

First Prize of Guangxi Translation Competition

The second prize of Guangxi Undergraduate Electronic Design Competition

## RESEARCH EXPERIENCE

# Design of Huanglong disease detection system based on quadrotor UAV (Patent in Preparation) 04/2022-Present

Lab: Embedded System Training Base of GUET; Advisor: Zou Shuizhong

- > DIY a quadrotor UAV with stable flight, high control accuracy and obstacle avoidance function and Studies the application of basic SLAM algorithm in UAV indoor flight
- > Trained the detection model of Huanglong disease and Used the AI vision module to detect feature elements and record feature images on the UAV
- ➤ Used OpenMV as the vision module to enable the UAV to patrol the flight and recognize specific characters. Combined STM32F4 and FreeRTOS and applied them in the process of UAV flight command

# Modular split takeout cabinet(Software copyright trial has been passed)

04/2021-Present

Lab: Embedded System Training Base of GUET; Advisor: Xiang Rong

> Designed a takeaway cabinet with WeChat mini program, which use MQTT communication protocol to communicate with the takeaway cabinet, realizing the functions of taking food reminder, location tracking and food temperature monitoring

# Smart tracing car with Gray scale camera (Competition in Preparation)

08/2022-Present

Lab: Embedded System Training Base of GUET; Advisor: Tong xuanke

- Designed a smart car with TC364 MCU and RT-Thread IoT operating system. Designed motor drive PCB and core control PCB of the smart car.
- Regulated the parameters of the smart car to make it reach 2.8m/s under the complex track (including the ring, the fork road and the sharp turn). Mainly regulates the PID parameters of steering gear, motor current and driving speed

# LEADERSHIP EXPERIENCE AND VOLUNTEERING

## Assistant head teacher 07/2022-Present

Detail: Automation Class 5, Grade 2022, Guilin University of Electronic Technology

- > Guided freshmen to adapt to college life, plan college studies, develop good habits and assist them to complete the relevant procedures for enrollment
- Assist in the planning of class activities, class committee elections and feedback to the school about freshman'demands

# Vice Chairman, Embedded Systems and Smart Car Innovation Base

08/2022-Presen

- Organized the design competition of smart car of Guilin University of Electronic Science and Technology. Be responsible for the material preparation, rule making and result adjudication of the creative competition.
- > Planed the development direction of the laboratory in Embedded product design, robot introduction and UAV basic design

## SELECTED SOFTWARE SKILLS

**Programming/Markup Language**: C,Python,C++

Hardware and Programming: Manual PCB manufacturing, 3D model design and 3D printing

English Level: IELTS 7 CET6 511 CET4 537