WANG WENQI

Engineer

EDUCATION

2021 - 2025

BACHELOR OF ENGINEERING

CHINA JILIANG UNIVERSITY

- Graduated in Measurement and Control Technology and Instruments.
- GPA: 3.3(now)

2025 - 2029

DOCTOR OF ENGINEERING

UNSW SYDNEY

- Will graduate in electrical engineering.

SKILLS

- C/C++ and Python
- Robot Design
- Embedded design
- Ubuntu 22.04
- CV, NLP and LLM
- Machine learning and Deep learning
- English communication
- Creativity
- Critical Thinking

LANGUAGES

- Chinese
- English (IELTS 6.5)

CONTACT

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PROFILE INFO

I am a passionate senior student who likes to explore, majoring in Measurement and Control Technology and Instrumentation. I have participated in various competitions such as the Electronic Design Competition and the Intelligent Vehicle Competition, and I have also been involved in national innovation projects at my university, including developing a fruit-picking robot. I have a strong understanding of embedded systems and have worked with platforms like STM32, Arduino, Raspberry Pi, and Jetson Nano. My programming skills include proficiency in C/C++ and Python.

I am particularly interested in the intersection of robotics and artificial intelligence. I have been learning and practicing computer vision (CV) and natural language processing (NLP), with a focus on machine learning. I am actively expanding my knowledge of AI-related technologies and exploring how to integrate them into daily applications, with a long-term goal of pursuing digital twins that incorporate artificial intelligence.

Currently, I am using Ubuntu 22.04 as a subsystem on my Windows machine through WSL2, and my server also operates on Ubuntu 22.04. I am studying for the IELTS exam with a goal of achieving a 7.0, although I have already attained a score of 6.5. My future academic plans involve studying at a top 50 QS university in Australia, such as UNSW Sydney, which is ranked as the number one university for engineering in Australia. I am deeply interested in robotics and AI, and after completing my studies, I hope to start a business focused on the local deployment of AI models, particularly in the medical field.

Beyond my academic and technical interests, I am fascinated by Western culture, history, and philosophy, and I plan to return to Europe for future travels to further explore these areas.

ACHIVEMENT

- 07/2024 The 3rd Prize of College Students Mechanical Design Competition, Provincial Level
- 11/2023 Academic Scholarship, School Level
- 09/2023 The 2nd Prize of Physics Experiment and Sci/Tech Innov. Competition, Provincial Level
- 08/2023 The 2nd Prize of National Embedded Chip & System Design Competition, National Level
- 07/2023 The 3rd prize of National Photoelectric Design Competition, National Level
- 04/2022 The 2nd Class Scholarship, School Level

etc.

EXPERIENCE

NATIONAL COLLEGE STUDENTS INNOVATIVE TRAINING PROGRAM, HANGZHOU, CHINA 06/2023-06/2025

Group Leader

- Organised team members to discuss and determine the overall project plan
- Employed the STM32F407 main controller and other modules to design a citrus-picking robot based on machine vision and flexible end effector
- Used SolidWorks to design the chassis of the robot and processed it through laser cutting
- Developed and debugged the STM32F407 main control, the K210 vision module and other control programs to optimise the whole operation process

PROFESSIONAL DESIGN PROJECT, HANGZHOU, CHINA 05/2024

Individual Patent

- Conducted research on the measurement parameters of coal powder particles
- Utilized Python for image enhancement (e.g. histogram equalization for contrast improvement)
- Carried out edge detection using Gaussian Blur and applied the Canny algorithm for improvement
- Developed a microscope-based coal powder detection software based on image processing (the design was patented and the registration number is 2024SR0693693)

UNDERGRADUATE ELECTRONIC DESIGN CONTEST OF ZHEJIANG PROVINCE, HANGZHOU, CHINA 07/2022

Group Leader

- Designed an intelligent car using the MSP432P401R microcontroller of Texas Instruments
- Used ultrasonic sensors to implement path tracking and speed control of the intelligent car
- Incorporated a Bluetooth module to enable wireless control of the car through a smartphone app
- Utilised OpenMV camera to perform line tracking detection and provide feedback
- Tested each module to ensure accuracy and used CCS IDE debugging tools to solve issues

etc.