

# Yixuan Huang

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## Education

### 3rd Year undergraduate – Electronic Information Engineering

Wuhan University of Technology

Sep. 2022 – Current

Wuhan, China

- GPA: 91.11/100
- **Coursework:** Electrical Engineering and Electronics, Analog Electronic Circuit, Digital Electronic Circuit, Microcontroller Applications

#### Selected Courses with High Grades:

- Introduction to C Programming – 98
- Computer Fundamentals & C Programming Lab – 100
- Java Programming – 95.33
- CUDA High-Performance Scientific Computing – 96
- Circuit Theory – 95.6 & 97.4

## Selected Skills and Awards

**Languages:** Python, C/C++, Java, MATLAB, Assembly Language, VHDL

**Tools/Technologies:** Git, Linux, LaTeX, CUDA, PCB Design Software

**Hardware:** Circuit design, soldering, microcontroller programming

**Signal Processing:** Digital filters, FFT, audio signal analysis

**Soft Skills:** communication, adaptability, detail-orientation, collaboration

- **Provincial First Prize** – China College Engineering Practice and Innovation Competition Ranked 2nd nationally in the Provincial Selection (2023)
- **University Scholarship** – Second Prize Scholarship (2023), First Prize Scholarship (2024)
- **Excellent Student** – Wuhan University of Technology Excellent Student (top 1%) (2023, 2024)

## Experience

### China College Engineering Practice and Innovation Competition – Competitions

Jun. 2023 – Oct. 2023

Provincial First Prize, Ranked 2nd Nationwide

- Led a team to design a simulated intelligent connected vehicle, capable of intelligently assessing road conditions and making driving decisions.
- Managed the overall project, ensuring smooth coordination and task delegation among team members.
- Developed and coded algorithms for vehicle decision-making in the simulation environment, optimizing for real-time performance and safety.

### Music Box – Electrical Engineering and Electronics Coursework

Sep. 2023 – Nov. 2023

- Designed a music box that mimics the appearance of a vinyl record player, featuring music circuits and light circuits.
- Fully designed the PCB layout for the music circuit and lighting control, using Altium Designer.
- Fabricated the PCB and assembled the final product, including soldering components and testing the circuit functionality.
- Successfully integrated lighting effects with sound for an interactive user experience.

### Electronic Keyboard – Analog Electronic Circuit Coursework

Nov. 2023 – Jan. 2024

- Designed and built a simple electronic keyboard that generates different tones when keys are pressed.
- Developed a driving circuit to control a buzzer for sound output, utilizing basic electronic components like resistors, capacitors, and transistors.

- Implemented an oscillator circuit to produce specific frequencies for each keypress.

#### **Multi-Functional Quiz Buzzer System** – Digital Electronic Circuit Coursework

Apr. 2024 – Jun. 2024

- Designed and implemented a quiz buzzer system using digital circuits, including logic gates and flip-flops.
- Built a state machine for detecting buzzer inputs and controlling an LED display and seven-segment displays.
- Applied de-bouncing circuits to ensure accurate input detection in competitive scenarios.

#### **Electronic Password Lock System** – Microcontroller Applications Coursework

Sep. 2024 – Nov. 2024

- Designed and implemented an electronic password lock system using a Raspberry Pi and a 4x4 keypad for secure access control.
- Programmed password validation, error handling, and feedback on an LCD screen.
- Integrated relay control to operate the locking mechanism based on password input.
- Overcame hardware debouncing issues and optimized keypad input reliability.

### **Extracurricular Activities**

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#### **Student Union Officer** – Wuhan University of Technology

Sep. 2022 – Jun. 2024

- Organized and coordinated multiple school-wide and department-level meetings, ensuring smooth communication and event execution.
- Assisted in the planning and logistics of the annual sports meet, including coordination of volunteers and event schedules.
- Led a team of students to manage event setups, troubleshoot on-site issues, and facilitate participant engagement during events.

### **Objective**

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I am a motivated undergraduate student majoring in Electronic Information Engineering at Wuhan University of Technology, seeking remote research opportunities in robotics, signal processing, and AI-driven technologies. I aim to leverage my expertise in programming, circuit design, and algorithm development to contribute to innovative projects at the intersection of robotics control and practical problem-solving, while expanding my knowledge and experience in cutting-edge research.