Yixuan Huang

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Education

3rd Year undergraduate – Electronic Information Engineering Sep. 2022 – Current
Wuhan University of Technology *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 (Raspberry Pi)

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)

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

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

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.