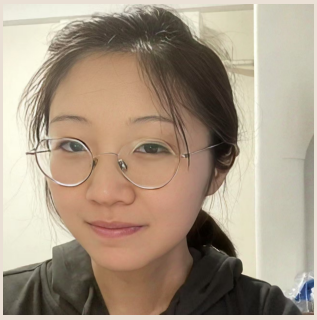

RAMONA XU

Electronic Science and Technology Students

CONTACT

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No. 9 Wenyuan Road, Nanjing

EDUCATION

Nanjing Post and Communications University

Electronic Science and Technology
September 2021 - July 2025

Relevant Courses:
Fundamentals of Circuit Analysis,
Signals and Systems,
Analog Electronic Circuits,
Digital Circuits&Logic Design,
Electromagnetic Field Theory,
Semiconductor Physics Fundamentals,
Programming Design, Software Design
igital Electronics, Data Analysis
Micro-fabrication & Devices

SKILLS

Programming Languages

- C/C++
- LaTeX
- HTML
- Python
- MATLAB
- Java

Languages

- English CET-6: 485
- Mandarin Level Test: 2th, Grade A

Software Tools

- Synopsys DC
- LTspice
- Solidworks
- Eclipse
- git/bash
- Ubuntu
- Multisim
- WPS
- VSCode
- TestStand
- VMware
- photoshop

PERSONAL PROJECTS

Smart Lock System Development

July 2023 - November 2023

Lead Developer

- Developed a smart lock system with fingerprint recognition, RFID card reading, password input, and remote control using CH32V307 microcontroller.
- Achieved >90% fingerprint accuracy with ATK-301 module and <1s RFID response time with RC522 module.
- Enabled remote lock control via ESP8266 Wi-Fi module and MQTT protocol (latency <100ms). Added ESP32-CAM for photo capture during unlocking and DHT11 for environmental monitoring.

Pressure Sensor-based Piano System

January 2023 - June 2023

Lead Developer

- Developed an electronic piano system using pressure sensors, amplification circuits, and Verilog programming.
- Created custom Verilog code for real-time note generation from sensor data.
- Enhanced sensor sensitivity with an operational amplifier for accurate note detection.
- Designed a user-friendly interface for melody customization and volume control. Achieved <5ms sound generation latency through rigorous testing.

Wireless Network Platform Optimization

April 2023 - May 2024

First Responsible Person

- Developed a simulation platform using OMNeT++ and Python-based GNNs to optimize network slicing performance under various conditions.
- Provided reliable predictions and optimization solutions, contributing to improved wireless network efficiency.

Trace-seeking Intelligent Vehicle

July 2022 - August 2022

Programming Design

- Designed control programs for an intelligent robot car using C language, implementing line-following and obstacle avoidance algorithms.
- Integrated infrared obstacle detection, ultrasonic distance measurement, and gyroscope balance control functionalities to ensure stable operation.

Detection Butler

September 2021 - April 2022

First Responsible Person

- Led the development of a WeChat Mini Program combined with intelligent robot technology to address challenges in pandemic-related people counting.
- Conducted detailed technical and economic design analysis, resulting in a published business plan received unanimous recognition from college experts.

Hardware

- STM32
- ESP32/8266
- Soldering
- 3D Printing
- Electronic Test Equipment
- PCB Design & Fabrication
- Schematic Design

Unique Skills

- Traditional Chinese Painting
- Piano and violin
- Amateur fiction writing
- Driving License C2

CAMPUS EXPERIENCE

NJUPT Volunteer associations April 2021 - August 2022

Academy Office Departments minister

- Participated in two phases of volunteer activities aimed at enhancing children's scientific literacy in the Qixia community. My primary responsibilities included the formulation of the budget plan prior to the event and the subsequent reimbursement of expenses.

Youth Volunteer Union September 2021 - September 2022

Department Member

- Collaborated with department members to plan and organize the layout of more than five examination venues on campus, as well as post-exam cleaning and tidying.

University Flag Guard Team September 2021 - June 2022

Team Member

- Enhanced overall physical fitness through twice-weekly morning exercises and three evening practices per week, achieving a 100% attendance rate.
- Mastered military etiquette and posture training, contributing to personal discipline and team professionalism.

HONOR CERTIFICATE

- Second Prize in the Application Track of the Sixth National College Students Embedded Chip and System Design Competition (Eastern China Region)
- Second Prize in the American College Mathematics Modeling Contest
- Outstanding Student Cadre (2022)
- Third-Class Scholarship (2024 and 2023)
- Second-Class Scholarship (2022 and 2021)
- Excellent Enrollment Volunteer (2022 and 2021)
- Outstanding Communist Youth League Member (2022)