#### NAN JING UNIVERSITY · KUANG YAMING HONORS SCHOOL

163 Xianlin Road, Qixia District, Nanjing, Jiangsu Province, China

 ■ (+86) 191-1535-8678

 |
 ■ ouhznehc@outlook.com

 |
 ★ www.ouhznehc.com

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 ■ Ouhznehc

"Be the change that you want to see in the world."

### Education

### **Nanjing University, Kuang Yaming Honors School**

Nanjing, China

**B.S. IN COMPUTER SCIENCE** 

Sep. 2021 - Now

- GPA 4.46/5.0 Ranking 12/107
- Relevant Course: Linear Algebra (94), Probability and Mathematical Statistics (90), Introduction to Computing Systems (94), Operating Systems (97), Digital logic and Computer Organization Experiments (90)

### Honors & Awards

| 2021 | Outstanding Award, Merit Based Scholarship for Outstanding Student | Nanjing University |
|------|--|--------------------|
| 2022 | Excellence Award, Scholarship in Basic Subject                     | Nanjing University |
| 2022 | 2nd Prize, People's Scholarship                                    | China              |
| 2023 | Bronze Award, 19th Programming Competition                         | Nanjing University |

# Competition

### American Mathematical Contest in Modeling (S Award)

Nanjing, China

TEAM LEADER

Mar. 2023

- Coordinated a team of 3 members to propose pricing strategy for used sailboats in Hong Kong market; employed adaptive density-based clustering and linear interpolation techniques to identify patterns and trends in the data set.
- Combined heuristic learning and hierarchical multivariate regression methodology with deep forest algorithm to build a versatile predictive model; obtained over 90insights into 22 pages of report.

# **Research Experience**

### **Resource-based Android Application Repackaging Detection**

Nanjing, China

NATIONAL LEVEL INNOVATIVE ENTREPRENEURIAL TRAINING PROGRAM

Sep. 2022 - Nov. 2023

- Developed and tested a repackaging detection program based on Android application resources using C language and Python; analyzed and
  extracted resource features using the dHash, LSH, K-means clustering algorithm and generated software birthmarks for comparison to improve
  the recall rate of repackaging application detection from 3% to 97%, precision rate from 20% to 90.6%.
- Promoted the program with Prof.Jun Ma to prepare for patent application and paper publication.

# **Course Project**

## **NJU-ProjectN Experiments**

Nanjing, China

PROJECT PARTICIPANT

Spring 2022

- Used C Language to implement a simplified but fully functional riscv32 emulator NEMU (NJU EMUlator) with four major function module: stack, heap and other basic data structures; the underlying storage units, data types and data operation; the paging and segmentation mechanism; handling of exceptions, interrupts and I/O issues.
- · Additionally built a small operating system based on this with memory allocation, thread switching, system calls and other functions.

### **RISC-V Architecture Computer Organization Experiments**

Nanjing, China

PROJECT DESIGNER

Spring 2022

 Used System Verilog language in the Vivado software platform to write a single-cycle CPU (clock frequency of 50MHz), support for the clock, keyboard, VGA display, digital tube and other peripherals, and successfully run a lightweight terminal on the FPGA development board.

### Skills

**Programming** C, C++, Python, Java, Verilog **Languages** English, Mandarin Chinese