Zhuo Chen

NANJING UNIVERSITY · KUANG YAMING HONORS SCHOOL

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"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