ZHAO ZHAO

zhaoz2021@mail.sustech.edu.cn · (+86) 134-2430-3121

EDUCATION

Southern University of Science and Technology (SUSTech), Shenzhen, China 2021 – Present

Undergraduate student in Mathematics and Applied Mathematics (MA)

- Freshman year GPA: 3.64 Rank: 18/48
- Sophomore year GPA: 3.73 Rank: 14/66
- Junior year GPA: Rank:
- Senior year GPA: Rank:

EXPERIENCE

Student Assistant of Course CS109 Java A 3 semester(2022 Fall, 2023 Spring, 2023 Fall)

Numeric Klotski Algorithm Project Dec. 2022

JavaSE, Algorithm Group Project of 3

Design an algorithm combined BFS and A* to solve Numeric Klotski problems with GUI implemented by java.Swing.

Jungle Chess Project May. 2023

JavaSE Individual Project

Jungle Chess is a video game by Java contains player mode, AI mode, loading and saving, user functions and a beautiful UI.

Genshin Kitchen FPGA Project Dec. 2023

Verilog, FPGA Group Project of 3

This project implements a backend of Genshin Kitchen which can be executed on FPGA with a client made by Unity. It also includes manual mode, script mode with automatic error handling and several I/O devices such as VGA.

Backend API Implementation Project Dec. 2023

Java, PostgreSQL, Graddle Group Project of 3

This project designs a database and implements some backend API of a video website including user, video, comment and recommendation, and based on this, featuring data encryption for added security and a special algorithm for generating video serial numbers.

MineCPU Mar. - May. 2024

SystemVerilog, RTL, CPU Group Project of 3

- Design and implement a 5-Stage Pipelined RISC-V ISA CPU with cache, interrupt control by SystemVerilog, can run on FPGA.
- Using forward and stall to solve data hazard, branch predictor with RAS(return address stack) to solve control hazard.
- IO of MineCPU using MMIO, including buttons, switches, leds, 7-seg tubes and VGA.
- Can use UART to load programs.
- Can run a big program called PACMAN (a video game through VGA graphics) on MineCPU.

Data Science for DC Crime Apr. - May. 2024

Data-Science, Python Group Project of 2

This project aims to analyze crime data in the DC region from 2008 to 2017 in depth, use data mining techniques to reveal potential information, and explore the relationship between crime and housing prices, providing data

support and decision-making reference for policy makers and social planners.The research content of this project includes but is not limited to the following aspects:

- Data preprocessing
- Data exploration and visualization
- Attribute correlation analysis
- The correlation between geographical regions and the number of crimes
- Housing price prediction

Skills

- Programming Languages: Java = Python > C/C++ > Verilog
- Platform: Linux, Windows10
- Development: Evolutionary Computation, Artificial Intelligence, Network Security, O&M

♡ Honors and Awards

Math & Math Modeling

- *2nd Prize in Province*, China Undergraduate Mathematical Contest in Modeling — Sep. 2022
- *2nd Prize in Province*, The Chinese Mathematics Competitions — Oct. 2022
- *S Prize*, 2023 COMAP MCM/ICM — Feb. 2023
- *S Prize*, 2024 COMAP MCM/ICM — Feb. 2024

ACM & CTF

- *3rd Prize*, 2022 SUSTech ACM — Mar. 2023
- *3rd Prize*, 2023 SUSTech ACM — Dec. 2023

Scholarship

- *3rd Prize*, Outstanding Student Scholarship of SUSTech — Sep. 2022
- *1st Prize*, Outstanding Student Scholarship of SUSTech — Sep. 2023

Miscellaneous

- Languages: English - Fluent, Mandarin - Native speaker
- Strong teamwork ability
- Documentation: LATEX, markdown
- GitHub: https://github.com/wLUOw