RUIQI FENG

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EDUCATION

University of Science and Technology of China(USTC) *September 2022-Present*
School of the Gifted Young major in Computer Science, minor in Finance
GPA(major): 3.62/4.3 86.17/100
Related courses: Computer Organization(92/100), Operating System(92/100),Algorithm(90/100),Computer Programming A(93/100),Data Structures(87/100),Mathematical Logic(89/100),

RESEARCH INTERESTS

My interest lies in financial engineering, especially using the machine learning methods to analyze data. Also, I am interested in reinforcement learning, for example, robot arm and embodied AI. If I have the honor to carry out summer research, I will be able to gain hands-on experience, which will complement my academic background and broaden my horizons. We can communicate on the details if I have the honor of being accepted.

RESEARCH EXPERIENCE

Compiler Sep. 2024 - Dec. 2024
Supervisors: Prof. Cheng Li USTC

This project built a complete SysY (a subset of the C language) compiler and implemented intermediate code optimization. Initially, a lexical and syntax analyzer based on Flex and Bison was implemented, followed by the conversion from syntax tree to LLVM intermediate code. Finally, optimizations were applied to the intermediate code using optimizing passes. After constructing the dominator tree, it used Mem2Reg (inserting phi functions and accomplishing variable renaming) to eliminate memory operations and perform dead code elimination.

Embodied AI outdoor garbage picking robot June 2024 - Present
Supervisors: Prof. Yanyong Zhang, and Prof. Jianmin Ji USTC

- Able to control kinova robot arm
- read code ros-planning
- participate in the group meeting, access to cutting-edge technology in Embodied AI
- connect, collaborate with and learn from brilliant peers

Design and synthesis a simple CPU February 2024 - June 2024
Supervisors: Prof. Xi Li USTC

- design a CPU by divided it into several modules, each of which is designed and programmed separately, and finally connected through a single bus.
- grasps verilog language and the commonly used electric circuit module design

SCHOLARSHIPS AND HONORS

Selected to School of Gifted Young by passing interview and written examination *Fall 2022*
Outstanding Student Scholarship, awarded by School of Gifted Young *Fall 2023Fall 2024(twice)*
Selected to Hua Xia Talent Program in Computer Science *Fall 2023*
Scholarship for students in Computer Science Honor Program, awarded by School of Computer Science *Fall 2023*

SKILLS

Programming Languages	Python, C/C++
Robotic Tools	ROS, Rviz
English	TOEFL:101(R28,L29,S21,W23) GRE:326+3.0(Q170,V156,AW3.0)