

Yue Tu

Summer 2023 Undergraduate Research Application for Purdue Software Systems Research

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EDUCATION

SUN YAT-SEN UNIVERSITY

09.2020 - 06.2024

- Bachelor of Computer Science and Technology
- GPA: 90.6/100 ; Rank: 23/209 ; CET6: 552
- Honors: Second Class Scholarship ; Third Class Scholarship ; ACM Novice Bronze Award ;
- Grade: Programming: 94 ; Computer organization: 94 ; OS: 94 ; Computer network: 92 ; Computer Architecture: 96 ; ...

PROJECTS

Development of "YatCPU" Test Plug-in [Link to Repo](#)

06.2021 - 09.2021

- **Explanation:** The purpose of writing test plugin is to verify the correctness of YatCPU(a RISC-V architecture CPU for teaching), thus help students and developers to check their CPU code.
- **Contribution:** I completed the writing of the YatCPU test plug-in. The plug-in can be used to test the correctness of YatCPU instruction execution, which is widely used by both the YatCPU developers and the students in the class.
- **Personal Gain:** I became familiar with the details of RISC-V architecture design and I gained the ability to quickly familiarize and apply software tools.

Development of Visualization Tools for Distributed System [Link to Repo](#)

02.2023 - 04.2023

- **Explanation:** The simulation tool to help student understand the incomprehensible protocols of distributed system.
- **Contribution:** I independently complete the development of visualization tools for Paxos. Based on user defined events, the tool can simulate the state and actions of several distributed nodes over a period of time and display it in the form of a table.
- **Personal Gain:** I developed an interest in further researching distributed systems protocols.

Ebpf Tracing Tool development of National Collegiate Operating System Competition

05.2023 - present

- **Progress:** Still in early stage development, but it is basically certain that it will pass the preliminary round.

RESEARCH EXPERIENCE

Scientific Research Training on Storage System

10.2021 - 04.2022

- I practiced the source code of LevelDB (an open-source storage system), systematically learned the use of Linux.
- I received guidance from the tutor and the seniors for future study in the field of computer system.

RESEARCH INTEREST

I love the study of computer systems and dream of becoming a computer systems scientist who can solve challenging problems. The field of computer systems attracts me in the following aspects:

- For a good computer system design, although its content is complex on the surface, the ideas behind it are always simple and elegant, and these ideas are worth thinking about.
- In the development of computer systems, it is very rewarding to be able to find the optimal solution from the countless ideas.