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Site Fan

Education

Southern University of Science and Technology (SUSTech) Shenzhen, China
Bachelor of Engineering in Computer Science and Technology 2021 - Expected 2025

- GPA: 3.92/4.00, Rank: 5/195.
- Honored Degree, Turing Class of 2021, Rank: 1/29.

Related Courses	Score	Letter Grade
Operating Systems(H)	100	A+
Computer Organization and Architecture(H)	100	A+
Machine Learning(H)	99	A+
Data Structure and Algorithm Analysis (H)	96	A
Algorithm Design and Analysis (H)	95	A
Digital Logic(H)	94	A
Artificial Intelligence(H)	93	A
Compilers	93	A

* The Courses with (H) are honorable courses of Turing Class.

Research

Research Intern at HPC Lab, SUSTech Shenzhen, China
Advised by **Prof. Zhuozhao Li**, Collaborate with Ant Group 2024/08-Present

- **GPU-based Parallel Subgraph Counting and Listing over Dynamic Graphs**
- Implemented subgraph counting and listing algorithms for dynamic graphs on GPU.
- Leveraging GPMA/LPMA as data structure for dynamic graph storage and update.

Research Intern at Order Lab, University of Michigan Ann Arbor, United States
Advised by **Prof. Ryan(Peng) Huang**, in submission to OSDI' 25 2024/03-Present

- **LiteSys: Achieving Cost-Effective Service Continuity for Datacenter Software**
- Developed a cost-effective framework for datacenter software to preserve availability during incidents without the resource-intensive demands of full replication.
- Enhancing reliability and availability of distributed systems towards metastability.

Research Intern at Teecert Labs, SUSTech Shenzhen, China
Advised by **Prof. Yinqian Zhang**, Collaborate with Ant Group 2023/06-2024/01

- **Stack Unwinding for Asterinas: a secure, fast, and general-purpose OS kernel**
- Implemented Stack Unwinding mechanism for Asterinas, enabling exception handling and debug supporting.
- Asterinas can serve as a seamless replacement for Linux while enhancing memory safety and developer friendliness: github.com/asterinas/asterinas

Research Intern at EMI Group, SUSTech Shenzhen, China
Advised by **Prof. Ran Cheng** 2022/06-2022/09

- **EvoX: Distributed GPU-accelerated Framework of Scalable Evolutionary Computing**
- Implemented multi-object optimization algorithms NSGA3 and LMOCSO for EvoX.
- EvoX offers a comprehensive suite of 50+ Evolutionary Algorithms and a wide range of 100+ Benchmark Problems/Environments: github.com/EMI-Group/evox

Projects

ShinxBot2 2024/03 - Present

A multi-chatbot management framework for QQ based on Lagrange.Onebot in C++.

- github.com/GuTaoZi/shinxbot2
- Containerized the framework and implemented events handling, with features with image processing.

SPL Compiler 2023/09 - 2024/01

A light-weight C-based compiler for a custom C-like language into MIPS32 Code.

- github.com/GuTaoZi/SPL_Compiler, project for Compilers (398/400)
- Implemented lexical, syntax, semantic analyzer and intermediate code generator from scratch using Bison and Flex.

GAS File System 2023/05 - 2023/06

A custom Linux file system implemented as a kernel module using C.

- github.com/GuTaoZi/GAS_Filesystem, project for Operating Systems (100/100).
- Supported basic file operations and VFS interfaces, inspired by *samplefs*.

Feather CPU 2023/04 - 2023/06

A light-weight single-cycle RISC-V CPU design on Minisys board for RV32I instruction set.

- github.com/GuTaoZi/FeatherCPU, project for Computer Architectures (130/100)
- Implemented with reference to *Computer Organization and Design:The Hardware/Software Interface*.

Activities

Teaching Assistant | Advanced Computer Program Design 2024/09 - 2025/01

- Responsible for lab sessions, assignment / project design.
- Introducing C, C++ and Rust programming languages, as well as their applications in system development and computing.

Outstanding Teaching Assistant | C/C++ Program Design 2023/09 - 2024/01

- Responsible for lab sessions, quiz / assignment / project design.
- Giving a good knowledge of C and C++, as well as a working practice of Linux through lectures and programming tasks and projects

President | 2021 Turing Class, Dept. CSE 2022/08 - Present

- Responsible organizing activities for Turing class, following-up research and coursework progress, assisting and communicating with faculties etc.

Outstanding Peer Mentor | Shude College, SUSTech 2022/05 - Present

- Responsible for advising undergraduates on major selection, academic advising, psychological assistance, and fundamental computer knowledge.

Awards and Honors

- **First Prize of Outstanding Student Scholarship**, SUSTech 2022,2023,2024
- **National Scholarship**, SUSTech (9 out of 4000) 2023
- **School Motto *Truth* Series Scholarship**, SUSTech (3 out of 4000) 2023
- **Top 10 Outstanding Volunteers**, SUSTech 2023
- **Outstanding Teaching Assistant**, SUSTech 2023
- **Outstanding Freshman Scholarship**, SUSTech 2021

Skills

Languages: Chinese (Native), English (Advanced, TOEFL 103:R30/L29/S22/W22).

Programming: `C/C++`, `Python`, `Java`, `Rust`, `SQL`, `Assembly`.