

# Shen Fu

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## Education

- 2020 – 2024 (expected) **B.S. in Computer Science and Technology**, *University of Science and Technology of China*, China
- School of the Gifted Young
  - **Major GPA: 4.04/4.30**, Cumulative GPA: 3.90/4.30, Rank: 24/262
  - Relevant coursework:
    - Compiler (96)
    - Operating System (90)
    - Computer Organization (91)
    - Algorithm (94)
    - Data Structure (92)

## Projects

- Jan 2023 **CminusF Compiler**, *Compiler for C-Minus-F (subset of C)*
- Utilized a simplified version of LLVM IR called LightIR.
  - Implemented the front-end parser, the IR generation and some optimizations.
  - Implemented a GVN analysis to eliminate redundant code and propagate constant values.
  - Generated machine code via LLVM's backend.
- May 2022 **RISC-V Sub, Self-Designed CPU Core**
- Implemented a 32-bit RISC-V ISA CPU core with 5-stage pipeline and 2-bit dynamic branch prediction in Verilog.
  - Supported a subset of RV32I instructions, including arithmetic, logical, memory, and control instructions.
  - Demonstrated the design by running on FPGA.
  - Developed and integrated the core with a Processor Debug Unit (PDU) independently.

## Awards and Scholarships

- Jan 2023 Jianghuai & NIO Automobile Scholarship  
Jan 2022 Chen Linyi Scholarship  
Dec 2020 Outstanding Freshman Scholarship (Grade 2)

## Skills

### Programming Languages

- Skilled C/C++, Python, Verilog, Markdown,  $\text{\LaTeX}$   
Familiar Lua, Shell Script

### Tools and Operating Systems

- Experienced Git, Vim, Docker  
Familiar Linux, Windows

### Languages

- Native Mandarin Chinese  
Fluent English