Shen Fu

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Education

2020 – 2024 (expected) **B.E. in Computer Science and Technology**, *University of Science and Technology of China*, China
- ○ School of the Gifted Young
- ○ **Major GPA: 4.05/4.30**, Cumulative GPA: 3.89/4.30, Rank: 24/262
- ○ Relevant coursework:
  - Data Structure
  - Operating System
  - Computer Organization
  - Algorithm
  - Computer Network
  - Compiler

Awards and Scholarships

Dec 2020   Outstanding Freshman Scholarship (Grade 2)

Jan 2022   Chen Linyi Scholarship

Jan 2023   Jianghuai & NIO Automobile Scholarship

Projects

May 2022 **RISC-V Sub**, *Self-Designed CPU Core*
- ○ A 32-bit RISC-V ISA CPU core with 5-stage pipeline and 2-bit dynamic branch prediction, implemented in Verilog.
- ○ Supports a subset of RV32I instructions, including arithmetic, logical, memory, and control instructions.
- ○ Successfully demonstrated the design by running on FPGA.
- ○ Independently developed and integrated the core with a Processor Debug Unit (PDU).

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.

Skills

Programming Languages

Proficient   C/C++, Python, Verilog

Skilled   Markdown, LaTeX

Familiar   Lua, Shell Script

Tools and Operating Systems

Experienced   Git, Vim, Docker

Familiar   Linux, Windows

Languages

Native   Mandarin Chinese

Fluent   English