

Yijia Ma

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EDUCATION

Shanghai Jiao Tong University

Sep. 2023 - present

B.S. in Computer Science, ACM Honors Class

- **GPA:** 3.88/4.3 (Rank: #10/27)
- **Selected Courses:**
 - Abstract Algebra: 100/100
 - Linear Algebra: 98/100
 - Mathematical Logic: 98/100
 - Algorithm Design and Analysis: 95/100
 - Computer Architecture: 93/100

Shanghai High School

Sep. 2020 - Jun. 2023

Fudan University Mentorship Program

RESEARCH INTEREST

My research interests lie in computer security, with a particular focus on **secure decentralized systems**. I am broadly interested in the **architectures, protocols, and cryptographic foundations** that ensure confidentiality and integrity. I am currently exploring methods for achieving privacy and integrity, including **Trusted Execution Environments (TEEs)**, cryptographic techniques, oblivious architectures, and I am also interested in identifying and analyzing potential **vulnerabilities and exploitations** in such systems.

RESEARCH EXPERIENCE

Network Security and Privacy Protection(NSEC) Lab, SJTU

Jun. 2025 - present

Under the supervision of Prof. Guoxing Chen at SJTU, I have been conducting research on TEEs and Oblivious RAMs. We seek to optimize the performance of these secure architectures.

At present, we are developing a framework to accelerate the loading and attestation of memory-intensive programs in the enclave, providing a smoother startup performance.

HONORS AND AWARDS

2023 Zhiyuan Honors Scholarship

2% of SJTU

2024 Zhiyuan Honors Scholarship

2% of SJTU

Academic Dedicated Scholarship

Limited to 12 students in the cohort

SJTUCTF 2024

Freshman Exploration Award

SJTU × ZJUCTF 2025

Silver Medal, 8th place in SJTU

TEACHING EXPERIENCE

Principle and Practice of Computer Algorithms

Teaching Assistant

2025 Summer

Abstract Algebra

Teaching Assistant

2025 Fall

PROJECTS

RISC-V CPU

[Repo](#)

An efficient CPU implemented in Verilog using the Tomasulo algorithm, supporting the RV32IC instruction set.

STLite

[Repo](#)

Course project for Data Structures, featuring C++ implementations of common STL containers. Additionally, B+ Tree is implemented.

Mx* Compiler

[Repo](#)

A compiler from a customized language to RISC-V assembly written in Java.

SKILLS

Programming: C, C++, Python, Java, Verilog, Rocq Prover

Tools: L^AT_EX, Git, Bash, CMake

Languages: English(Fluent, TOEFL 107), Chinese(Mandarin, Wu)(Native)