

# Chenhao Bao

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## EDUCATION

**Shanghai Jiao Tong University**

**Shanghai, China**

*Bachelor of Engineering in Computer Science and Technology*

Aug 2021 – Jun 2025

- **GPA:** 3.92 / 4.3
  - **Honors:**
    - *Zhiyuan Honors Scholarship 2021,2022,2023*
    - *SJTU Merit Scholarship - C level 2022,2023*
- **Relevant Coursework:** Algebraic Structures/Data Structure/Operating System/Graph Theory and Combinatorics/Design and Analysis of Modern Algorithms/Probability/Optimization Methods/Data Mining/Quantum Computing/Computational Complexity/Honor Mathematical Analysis

## RESEARCH INTEREST

- My research interest lies in fields of cryptography, including multi-party computation(MPC), lattice, quantum and key exchange. Recently, I'm working on a two-factor authenticated key exchange.

## PROFESSIONAL EXPERIENCE

**RISC-V CPU**

**Shanghai, China**

*Self-Contributor*

Sep 2022 – Feb 2023

- FPGA circuit implementation of RISC-V CPU of Tomasulo out-of-order-execution algorithm, written in iVerilog.

**Mx\* Compiler**

**Shanghai, China**

*Self-Contributor*

Sep 2022 – Feb 2023

- Engineered a compiler that compiles a C-and-Java-like language Mx\* to LLVM Intermediate Representation and RISC-V assembly, written in Java.

**Train Ticket Management System**

**Shanghai, China**

*Co-Contributor*

May 2022 – July 2022

- Simulated a comprehensive train ticket management system, encompassing ticket inventory management, cancellation processes, and waitlist functionality.
- Implemented efficient algorithms for ticket allocation and waitlist management to optimize seat utilization and minimize passenger inconvenience.
- Integrated robust data handling practices and data storage to maintain real-time updates of ticket availability and waitlist status.

**ICPC Competition Management System**

**Shanghai, China**

*Self-Contributor*

Sep 2021 – Nov 2021

- Developed mechanisms for rolling previous windows of competition data, allowing for transparent and timely updates of team standings and capabilities to backtest historical ranking status.

## SKILLS, ACTIVITIES & AWARDS

**Awards:** 2020 National High School Mathematics League Second Prize

**Languages:** Native in Chinese; Fluent in English

**Technical Skills:** C++/Python/Java/Go/Verilog/Matlab/LaTex/Markdown

**Activities:** Member of Academic Center, Teaching Assistant