Andong Fan

College of Computer Science and Technology

Zhejiang University

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EDUCATION

Zhejiang University

B.Eng. in Computer Science and Technology — Sept. 2018 — June. 2022 (Expected)

Bashu Secondary School

One of top four secondary schools in Chongqing, China — Sept. 2012 — June. 2018

ACADEMIC PERFORMANCE

Zhejiang University

College of Computer Science and Technology

- **GPA:** 3.94/4, 89.87/100
- **Rank**
  - **2nd Academic Year (2019-2020):** 10/172, among CS-major students
  - **1st Academic Year (2018-2019):** 100/832, among students of all informatics related majors
- **Course Performance**
  - **Programming:** Object-Oriented Programming (95), Linux Programming (96), C Programming Project (95)
  - **Mathematics:** Probability and Statistics (95), Numerical Analysis (94), Linear Algebra (90), Calculus II (88)
  - **Computer Science:** Supercomputing Summer Training (98), Computer Graphics (95), Database Systems (93), Digital Logic Design (91), Fundamentals of Data Structure (89), Discrete Mathematics (88)

EXPERIENCES

Supercomputing Contest Team Member

Zhejiang University — Jul. 2019 — PRESENT

- Serving as a major team member of five participating in ASC Student Supercomputing Challenge 20-21. Responsible for optimization of the quantum circuit simulator QuEST. Practiced optimization skills including program logic, compilation, MPI configuration and cluster communication.
- Served as Teaching Assistant in 2020 summer training. Responsible for jobs including sharing optimization techniques and grading lab projects. Helping with the study process of fellow students deepened my understanding of application tuning.
- Finished 2019 summer training project *Parallelized Matrix Computing with OpenMP and MPI*. Practiced parallelism, multi-node computing, multi-core and cache-friendly programming. Final evaluated performance ranked 2/19.

Tech Lead of Qiushichao Mobile iOS

Zhejiang University — Jun. 2019 — PRESENT

- Leading the iOS team in the development of the Qiushichao Mobile, the most popular campus app at Zhejiang University with more than 9,000 weekly active users (App Store link).
- Developed in Swift completely. A safe, fast, and expressive language. Learning and practicing Swift strengthens my understanding of programming language features such as closure, optional and enumeration.
- Responsible for implementation of new app features, issue resolving, code review of members, publishing test versions and shipping to App Store.

Olympiad in Informatics Team Member

Bashu Secondary School — Oct. 2015 — Nov. 2016

- Received intensive training of the team. Studied and implemented basic and advanced data structures and algorithms. Solved more than 600 problems on Bashu Online Judge. Communicated intensely with teammates, seniors, and coaches. Invested ≥ 70 hrs/wk before the contest.
- Achieved First Prize at 2016 National Olympiad in Informatics in Provinces (NOIP). Qualified to participate in the special enrollment program of Zhejiang University.

Course Project — MUA Interpreter
Principles of Programming Languages, Zhejiang University   Sept. 2020 — PRESENT
- An interpreter for a functional programming language MUA designed by the instructor. Developed in Java.
- Implemented features including name definition, value binding, if-statement, evaluation of arithmetic expressions, and function definition and calls.
- Tentative unimplemented features include closure and list processing.

Course Project — Simple OS for RISC-V Machine
Operating Systems, Zhejiang University   Sept. 2020 — PRESENT
- A simple operating system for RISC-V machine. Developed in RISC-V assembly and C.
- Implemented features including timer interrupt, task scheduling, and context switches.
- Tentative unimplemented features are sophisticated virtual memory features and virtual file system.

Course Project — MiniSQL
Database Systems, Zhejiang University   Feb. 2020 — Jun. 2020
- A simple single user DBMS MiniSQL, which supports CRUD operations from SQL queries. Developed in C++.
- Implemented *B^+Tree Index Manager*. Contributed and debugged more than 800 lines of code. Indexing accelerates queries by utmost 200 times faster than no indexing.

HONORS & CERTIFICATIONS

Zhejiang Provincial Scholarship	Department of Education, Zhejiang Province
No more than 5% students awarded	2020
Second-Class Scholarship of Zhejiang University	Zhejiang University
No more than 8% students awarded	2020
Zhejiang Provincial Scholarship	Department of Education, Zhejiang Province
No more than 5% students awarded	2019
Second-Class Scholarship of Zhejiang University	Zhejiang University
No more than 8% students awarded	2019
The 19th Zhejiang University Programming Contest	Zhejiang University
Third Prize	2019
National Olympiad in Informatics in Provinces	China Computer Federation (CCF)
First Prize	2016

SKILLS

Programming Languages (frequently used): C, C++
Programming Languages (used when needed): Java, Swift, Python, Bash Scripts, SQL
Tools: git, TEX, Coq Proof Assistant (interested in and learning)
High Performance Computing Libraries/Frameworks: OpenMP, MPI