

# JIAJUN QIN

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## RESEARCH INTEREST

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I am a third-year undergraduate student at Zhejiang University. My research interests include **Machine Learning systems, heterogeneous computing and computer architecture**. Currently, I focus on acceleration of classic Machine Learning algorithms on heterogeneous devices(e.g. FPGA).

## EDUCATION

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**Zhejiang University, Chu Kochen Honors College** Sep.2021 - June.2025(expected)  
*Bachelor of Science, Computer Science and Technology* Hangzhou, Zhejiang, China

- GPA: 91.77/100.00 Rank: 2/81
- Selected Courses: Computer Organization and Design(99), Fundamental of Data Structure(99), Advanced Data Structure and Algorithm Analysis(96), Mathematical Analysis I II(95 95)

## PROJECTS

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**Implementation of Improved Kmeans Algorithm on FPGA**  Aug. 2023 - Now  
*supervised by Prof.Zeke Wang*

- First dataset will be transferred from host to HBM on the FPGA board, then I will implement the improved Kmeans algorithm by FPGA to accelerate it.
- The project is done in Chisel, which is a language embedded in Scala and it can generate Verilog codes.

**MiniSQL : A Basic DBMS | C++** Spring 2023  
*course project of Database System, teamwork*

- It includes a disk manager, buffer pool manager, table heap, B+ tree index, catalog manager, SQL parser and executor. It supports common database operations and comes with an interactive SQL interpreter.
- I was involved in the development of buffer pool manager, table heap, B+ tree index and SQL executor.
- Our DBMS can pass all the test cases. And it can handle querying on 100,000+ records in 0.2 second.

## HONORS AND AWARDS

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**Zhejiang Government Scholarship** Fall 2022, 2023  
Awarded by **Ministry of Education of Zhejiang**, Top 6%, 2 consecutive times *Zhejiang Province, China*

**Huawei Elite Scholarship** Oct. 2023  
Awarded to 4/~500 students by Huawei *Huawei Technologies Co., Ltd*

**Third Prize in National Student Computer System Capability Challenge** Aug. 2023  
Awarded to **Top 10%** participants based on the performance of the MIPS processor

**Second Prize in CSP-S 2019** Nov. 2019  
National Olympiad in Informatics in Provinces *China Computer Federation*

## TEACHING ASSISTANT

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**Introduction to Computing Systems** Jul. 2023 - Sept. 2023  
*Zhejiang University* Hangzhou, Zhejiang, China

- Instructors: Dr.Yale Patt and Prof.Xiaohong Jiang
- Topic: Digital logic, assembly language & computer organization

## SKILLS

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**Programming Languages:** C/C++, Verilog, Chisel, Python, Rust  
**Languages:** Chinese (Native), English(CET-6 575)