

Xingyang Li

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EDUCATION

Shanghai Jiao Tong University(SJTU)

Shanghai, China

Bachelor of Computer Science

Sept. 2022 - Present

- Member of ACM Honors Class, which is an elite CS program for top 5% talented students
- **GPA** (All): **3.99**/4.3, Ranking: **4**/30, 13 A+ courses
- Selected Core Courses: Machine Learning: 97/100, Comprehensive Design for Computer System: 97/100, Compiler Design and Implementation: 97/100, Information Theory: 98/100, Principle and Practice of Computer Algorithms: 100/100, Advanced Compiler: 100/100, Linear Algebra: 100/100, Mathematical Logic: 100/100

RESEARCH EXPERIENCE

Research interests: efficient algorithms and hardware for machine learning and mobile visual computing

Emerging Parallel Computing Center, SJTU

Shanghai, China

Advisors: Prof. Jingwen Leng and Prof. Yu Feng at EPCC Lab, SJTU

June. 2024 - Nov. 2024

- Explored efficient scalable point-based neural rendering models like Gaussian Splatting by reducing the dominating level-of-detail(LOD) tree traversal overhead. (*co-first author; under review of 62 DAC*)
- I proposed a memory-friendly algorithm to distribute the workload of tree traversal to different working units, boosting scalable point-based neural rendering models by taming workload imbalance and memory irregularity.

COURSE PROJECTS

Mx* Compiler with Just-in-time Compiler(JIT) for llvm

SJTU ACM Class Compiler Design and Implementation 2023 Assignment (CS2966 Course Project)

A compiler from a C++ & Java-like language to RV32I Assembly with multiple llvm-level and assembly-level optimizations. It also supports JIT compilation for llvm.

RISC-V CPU Implemented in Verilog RTL

SJTU ACM Class Computer Architecture 2023 Assignment (CS2951 Course Project)

A Tomasulo RISC-V CPU with I-Cache and branch predictor. It can be successfully implemented on the FPGA board.

An Implementation of the Google File System(GFS)

SJTU ACM Class Comprehensive Design for Computer System (CS2913 Course Project)

An implementation of GFS in Golang with fault-tolerance, snapshots, and reproduced benchmarks.

A Real-time Efficient Domain Adaptation Model

Outstanding Paper of SJTU ACM Class Machine Learning (CS3308 Course Project)

A domain-adaptation training framework leveraging the time of downloading dataset with 25% training speedup.

HONORS & AWARDS

- 2024 Commercial Sponsorship Scholarship (**14 winners** each year in SJTU)
- 2023 Longfor Merit Scholarship (**Top 10** in Zhiyuan College, SJTU)
- 2022, 2023, 2024 Zhiyuan Honorary Scholarship (**Top 2%** in SJTU)
- 2023, 2024 Academic Excellence Scholarship (Ranked 4-th, 2-nd respectively in ACM Class of 2026)

TEACHING EXPERIENCE

Mathematical Logic

Teaching Assistant of Professor Qiang Yin and Professor Yijia Chen

Feb. 2024 - June. 2024

Computer Programming

Teaching Assistant of Professor Huiyu Weng

Sept. 2023 - Jan. 2024

Role as teaching assistant: Giving lectures and recitation classes, writing documents and sample solutions, grading homework, creating exam questions, etc.

TECHNICAL SKILLS

Languages: Mandarin (native), English (proficient, CET6: 665/710, TOEFL: 115).

Programming Languages: Proficient in C/C++, CUDA, Go, Java, Python, and Verilog.