

Yinchen Ni

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EDUCATION

- **University of Michigan - Shanghai Jiao Tong University Joint Institute** Shanghai, China
B.S. in ECE, Minor in CS (in progress); GPA: 3.80; Rank: 15/220 Sep. 2020 - Aug. 2024
 - Related Courses Taken:**
 - VE280, Programming & Elem. Data Structures.
 - VE281, Data Structures & Algorithms.
 - VE370, Introduction to Computer Organization.
 - ECE4710J, Introduction to Data Science.
 - ECE4820J, Introduction to Operating Systems.
 - Courses in Progress:**
 - VE373, Design of Microprocessor Based Systems.
 - VE472, Analysing Methods and Tools for Big Data.

SKILLS SUMMARY

- **Speaking:** Mandarin (Native), English (CET6 : 641 Toefl : 102)
- **Programing:** C/C++, Python, Shell scripting, Java, Matlab, Verilog
- **Frameworks:** Hadoop, K8S, Spark, Drill, Ray
- **Tools:** L^AT_EX, Git, Docker, Markdown, Origin

RESEARCH PROJECTS

- **Scheduling of Multiple Data Copy Engines in a Heterogeneous Computing Architecture:**
 - Model general heterogenous computing arch; Propose non-preemptive workload function; Conduct end-to-end response time analysis; Improve the schedulability upto 157% and reduce pessimism by 25%.
- **Study of Camera Calibration Algorithm:**
 - Take photos of physical models using binocular cameras; Applly SIFT, HoughCircle and Kmeans Algorithms; Re-construct 3 different kind 3D models with less than 10% error.

COURSE PROJECTS

- **Multi-threaded DataBase Optimization:**
 - **Function:** Support basic SQL conditional queries;
 - **Optimization:** Optimize single query for large table to be 40% faster using multi-threading; Auto detect the optimized thread num based on table size;
- **Simple Shell Based on C:**
 - **Function:** Support basic Unix commands, file I/O re-directions, pipes and errors/signals handling;
 - **Quality:** Code quality can pass cplint and cppcheck.

WORKING EXPERIENCE

- **Intel BigDL Project Intern** Offline
<https://github.com/intel-analytics/BigDL> Dec. 2022 - May. 2023
 - Project maintenance and bugfix; Github action CI/CD; Develop recommendation system example; Validate Yarn,K8S programming setting;
- **Teaching Assistant in UM-SJTU JI** Hybrid
Courses: Intro to Computer Programming, Data Structures, Honors Math, Discrete Math Sept. 2021 - Present
 - Lead recitation classes in English; Hold office hours; Grade homework and exams.

HONORS AND AWARDS

- 2022 Yu Liming Scholarship - Nov. 2022
- Finalist in 2022 American College Math Modeling Computation - May. 2022
- 2021 National Scholarship - Oct. 2021
- John Wu & Jane Sun Sunshine Scholarship - Nov. 2021
- B Outstanding Scholarship for Undergraduate Students - Nov. 2021
- Excellent Volunteer of Student Union - May. 2021

STUDENT ACTIVITY

- **UM-SJTU JI Teaching Assistant Mentor**
Plan/ facilitate/ lead TA training programs and TA managements. March 2023 - Present
- **President of SJTU Piano Association**
Conduct offline Piano Concert opening for all SJTU students. June 2021 - July 2022
- **Student Volunteer in Welcoming 2022 SJTU Graduate Students**
Guide and help more than 100 students Sept 2022
- **Member in SJTU-JI Student Union Tech Department**
Organize events, conduct workshops and delivered workshops reaching over 300 students. Sept 2021 - Sept 2022