

Yinchen Ni




Nick name: Hamster
Webpage: hamham223.com

Email: niyinchen@sjtu.edu.cn
Mobile: +86-181-5742-5386
Linkedin: in/yinchen-ni-hamham/

EDUCATION

- **University of Michigan - Shanghai Jiao Tong University Joint Institute** Shanghai, China
B.S. in ECE, Minor in CS (in progress); GPA: 3.81; Rank: 13/220 Sep. 2020 - Aug. 2024
- Related Courses Taken:**
- VE370, Intro. to Computer Organization.
 - VE373, Design of Microprocessor Based Systems.
 - VE472, Analysis and Tools for Big Data.(A+)
 - VE482, Intro. to Operating Systems.(A+)
- Courses in Progress:**
- ECE3110J, Electronic Circuits.
 - ECE4730J, Advanced Embedded Systems.






WORKING EXPERIENCE

- **AI Platform Engineering Intern, Intel**  Offline
Contribute to BigDL: fast, distributed, secure AI for Big Data on Intel hardware Dec. 2022 - May. 2023
 - Project **orca**: Refactored github repo CI/CD workflow, eliminated unnecessary dependencies, added daily/nightly testing; Validated Yarn, K8S cluster setting, updated corresponding tutorials and documents; Created dockerfile for orca under different python environments;
 - Project **fresian**: Developed Big Data recommendation example codes, created corresponding documents; Released the corresponding toolkit with docker-compose, k8s, helmchart.
- **Research Assistant, SJTU EHPCL**  Offline
Topics: Real-Time scheduling in heterogeneous computing architecture Dec. 2022 - Present
 - Modeled general heterogeneous computing architecture using self-suspension; Proposed non-preemptive workload function on tasksets; Conduct an end-to-end response time analysis; Validate and compare schedulability with real CUDA programs; Improve the schedulability up to 157% and reduce pessimism by 25%.
- **Teaching Assistant, UM-SJTU JI**  Hybrid
Courses: Intro to Computer Programming, Data Structures, Honors Math, Discrete Math Sept. 2021 - Aug. 2022
 - Led recitation classes in English; Designed course projects and labs; Graded homework and exams.

SKILLS SUMMARY

- **Speaking:** Mandarin (Native), English (CET6: 641, Toefl: 102, GRE: 319)
- **Libraries:** Numpy, Matplotlib, Pandas, OpenCV
- **Frameworks:** CUDA, Hadoop, Spark, K8S, Pytorch
- **Programming:** C/C++ (linux, embeded), Python, Shell Scripting, Matlab, MySQL, Java
- **Tools:** L^AT_EX, Git, Docker, Origin Lab, Nsys Profile

PROJECTS

- **Big Data Recommendation system on Million Song Dataset**  
 - Transferred data into **avro** in parallel; Examined data basic property by **Drill** sql query; Used both **Spark** and **Mapreduce** to recommend the most similar song with customization metrics; Reduced data dimension by **MLlib** PCA and predicted the year of songs; Demonstrated by L^AT_EX beamer and A1 poster.
- **Music Game on PIC32 Microchip** 
 - Use **UART** to interact and display on the screen, get pressures (as hits) from the piezoresistor by **ADC** module, control the looped music using **Timer** and **PWM**.
- **Multi-threaded DataBase Optimization** 
 - Supported basic **SQL** conditional queries; Optimized single query for large table 40% faster by **multi-threading**; Detected optimized thread number based on table size automatically.
- **Simple Shell (mumsh) Based on C** 
 - Supported basic **unix** commands and error handling, bash style file I/O re-directions, pipes; Implemented interrupt signal handling and shell built-in command; Passed **cpplint** and **cppcheck** code quality;

HONORS AND AWARDS

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