QIQIAN CHEN 陈启乾

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🎓 EDUCATION

Tsinghua University, Beijing, China   2020.9 – 2024.7(estimated)

Undergraduate, Software Engineering   *Cumulative GPA* 3.797/4 , *rank* $\sim$ 23/93

University of Waterloo, Waterloo, Canada   2022.9 – 2023.1

Term Exchange, Faculty of Mathematics   *Term Average* 89.8/100

The High School Affiliated to Renmin University, Beijing, China   2017.9 – 2020.7

📕 RESEARCH EXPERIENCES

Research Intern   2023.3-

ALCHEM Group, supervised by Prof. Xuehai Qian   Purdue University

- Focused on system optimization for GNN training and inference

Participant, Quantum Circuit Optimization Topic   2022.3 – 2023.3

Student Research Training Program(SRT), supervised by Prof. Zhengfeng Ji   Tsinghua University

- Focused on **classical simulations of the quantum circuit** by contracting tensor networks
- Wrote a review on the topic, summarize current state-of-the-art approaches

Undergraduate Research Assistant   2021.12 – 2022.11

PACMAN lab, supervised by Prof. Jidong Zhai   Tsinghua University

- Worked on **a CPU/GPU high-performance graph mining system** named *GraphIndor*
- Improved the performance of **Frequent Subgraph Mining on GPU** by mostly 1000x with efficient adaptive parallel strategies and implementation in CUDA

⚙ INDUSTRY EXPERIENCES

Part-time Intern   2023.2-

Risk Management Technologies Department, Digital Finance   Ant Group

- Focused on **graph mining** in the financial scenario
- Incorporated **unprecedented billion-vertexes labeled graph** into the existing system

👥 PROJECTS

LunchTime, *an Android BBS app with Kotlin and Jetpack Compose*   2023.5 – 2023.6

Coding Online, *a Web Python IDE with Vue3, Typescript and Flask*   2022.7 – 2022.8

ThssDB, *a toy relational database system with Java, Thrift and ANTLRv4*   2022.6

cpp2llvm, *a C to LLVM compiler using ANTLRv4*   2021.12

ThuConqueror, *a turn-based strategy chess game with Qt Graphics*   2021.9

No Gugu Todo List, *a todo list with WeChat Miniprogram framework*   2021.2 – 2021.7

ERISC Simulator, *a C++ simulator of an extremely reduced instruction set*   2020.11

⚙ SKILLS

- Language: C++, CUDA (Proficient); Python, JS/TS, Java, Kotlin (Familiar); Rust (Novice)
- Framework: Qt, Vue.js, Windows & Android SDK, Flask, PyTorch
- Tools: Linux (cluster experience), Slurm, Git, LaTeX, Docker
- English: IELTS 7.5 (R9.0, L8.5, W6.5, S6.0), TOEFL 106(R30, L27, S23, W26)

❤ Scholarships and Honours

Social Work Outstanding Scholarship ,*Tsinghua University*   2022.11
Honorable Mention(20%), *2022 The Interdisciplinary Contest in Modeling*   2022.2
Comprehensive Outstanding Scholarship(20%), *Tsinghua University*   2021.11
Third Prize, *2021 China Wechat Program Developing Competition*   2021.8
First Prize(20%), *2018 National Olympics of Information, Province(NOIp)*   2018.11