Jianxin Qiu

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Education

Beijing University of Posts and Telecommunications, Undergraduate 09/2017 – Present

- Major: Data Science and Big Data Technology, Ranked 1 out of 63, Anticipated Graduation Date: 06/2021
- GPA: 90.47/100

Work Experience

SmartX Inc., Beijing, China 09/2019 – 01/2020

(Distributed Storage Systems) Software Engineer Intern, C++

- Improved the long task execution module, including backup storage parallelization, QoS and task status management.
- Implemented Hadoop-like command line tools for the NFS interface of the storage service.
- Investigated and tuned the performance of MySQL running on ZBS at kernel level.
- Learned a lot about distributed systems and storage.

Research Experience

Network and Big Data Technology R&D Center, Tsinghua University 02/2020 – Present

(RISC-V TEE) Research Intern

- Implemented committed instruction flow collection based on RocketChip running on FireSim.

Portfolios

xv7 https://github.com/imtsuki/xv7

Operating System implemented in Rust

- "xv7" means it's inspired by MIT6.828 and xv6.
- Implemented UEFI Bootloader, interrupt management and memory management.
- Achieved memory safety in kernel with the help of Rust's safe abstractions and lifetimes.
- Made contributions to `rust-osdev`, an organization aiming at providing tools useful for OS development in Rust.

Raft Algorithm 08/2019

MIT 6.824 Labs

- Implemented fault-tolerant Raft algorithm and K-V store based on that.

Personal Experience

Cambridge Academic Development Seminar, U.K. 07/2018 – 08/2018

(Machine Learning) Summer Program

- Learned machine learning algorithms.
- Collaborated with others researching in machine learning applications and concerns.

Skills

- **Programming Languages**: not limited to any specific language, and experienced in Rust/C/C++, comfortable with Python/C#/Java/TypeScript (in random order).
- **System**: familiar with operating system concepts and design, have experience in optimizing performance on kernel level using tools like `strace` and `blktrace`.
- **Distributed Systems**: taken course MIT 6.824, understand consensus algorithms like Raft and ZooKeeper, have experience in distributed system development.
- **Machine Learning**: familiar with general knowledge of machine learning.
- **Developing Tools**: experienced in Linux-based programming, have experience with team tools like Jira, Git, etc.

Miscellaneous

- Interests: Distributed Systems and storage, databases and cloud applications.
- Open-source Contributions: contributed to `@rust-analyzer, @rust-osdev, @jupyter, @pingcap`, etc.
- Selected Courses: OS (91), Network (96), Database (92), Algorithm (93).
- Language Level: English GRE V158 + Q170 + AW3.5.
- *Meritorious Winner*, Mathematical Contest In Modeling 2019