迟猫猫

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教育经历

卡内基梅隆大学 August 2022 – December 2023 (Expected)
Master of Science in Computer Science Pittsburgh, PA, USA

上海交通大学 September 2018 – June 2022
B.Eng in Computer Science and Technology Shanghai, China

- GPA 93.58/100, Rank 1/149, National Scholarship 2019 (Top 0.2% national-wide)
- A+ Courses: Operating Systems, Computer Architecture, Computer Networks, and 28 others

项目经历

Singularity Data, Inc. August 2021 –July 2022
Database System R&D Intern Shanghai, China

- One of the top contributors of RisingWave —a next-generation streaming database in the cloud. Worked on the development of almost all components related to stream computing and state store.
- Designed and implemented **shared state** to support **streaming index** in RisingWave; implemented **lookup join executor** based on shared state to support efficient **index delta joins**.
- Lead the team to investigate and analyze **performance issues** in RisingWave with benchmarks; fixed bugs and proposed strategies which improved the system throughput by 10x in a 3-month period.
- Greatly improved RisingWave's development experience by initiating the **developer ecosyste**m, including **streaming system dashboard**, **developers' tool** *RiseDev*, and a **benchmark set-up tool** based on Terraform. They are now indispensable parts of everyone's development process.

ByteDance, Ltd. June 2021 –August 2021
Storage System R&D Intern, TerarkDB Team Beijing, China

- Implemented **Zone-Aware Garbage Collection** in **TerrakDB** for Zoned Namespace SSDs, which reduced 3-4x of space amplification caused by interleaving write lifetime in a single ZNS zone.
- Added observability facilities to **ZenFS** (by Western Digital) to analyze bottlenecks and implemented a **WAL-Aware Zone Allocator**, which reduced the p999 tail latency by 100x.

PingCAP, Inc. August 2020 – January 2021
Sotrage System R&D Intern, TiKV Storage Team Shanghai, China

- Built LSM-based storage engine **AgateDB** from ground-up. Inspired by WiscKey and BadgerDB, AgateDB separates large vallues from LSM tree into value log, so as to reduce write amplification.

开源贡献

cmu-db/bustub Fall 2022
Teaching Assistant for 15-445/645 Database Systems cmudb/bustub

- Design and implement **query processing (SQL) layer** (binder, planner, optimizer) for the bustub project and design course projects.

RisingLight Community January 2022 – Now
RisingLight Project Maintainer risinglightdb

- Leads the development of **RisingLight**, an OLAP database system for educational purpose. RisingLight is written in Rust, supports simple TPC-H queries, and has a merge-tree based columnar storage.

TiKV Community May 2020 – Now
TiKV Maintainer tikv

- Maintains **TiKV Coprocessor**, the push-down execution framework of TiDB. Mentored community members to contribute features (e.g. new data types, plugin system) in the **LFX Mentorship**.

Personal Projects **4k** followers skyzh

- **type-exercise-in-rust** (☆870): Learn Rust black magics (GAT, HRTB, bypassing compiler bugs, macros) by implementing an expression framework in database systems.

技能

Programming Languages: Rust, C++, Golang, Python and Node.js
Tech Skills: Key-Value Storage Systems, SSD-optimized File Systems, Database Systems, Stream-Processing Systems