

FENGLYU LIN

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EDUCATION

Wuhan University, China

2017 - 2021

Bachelor's Degree, Information Security. GPA: 3.68/4.0; Academic rank 29/103; Overall rank 5/103

Outstanding Graduate

Excellence Scholarship First Prize

National University of Singapore, Singapore

2024 - Present

Master's Degree, Part Time, Computer Science Specialisation

EXPERIENCE

Shopee, Singapore. Full Time, Senior Software Engineer

August 2021 - Present

Member of Order Team, responsible for the Seller Wallet and Order Fee.

Seller Wallet

- Maintained system to provide sellers functionalities of View Balance, Withdrawal, View Transaction History, etc. Delivered 20+ business features within a year.
- Reduced latency of 3 critical APIs from 10+ sec (timeout) to 3+ sec for all sellers by leveraging batch APIs, concurrency pool, and precache cronjob.
- Improved performance of 2 critical cronjobs, reduced execution time from 1 day to 6+ hours. Utilized distributed rate limiter to restrict QPM of third-party APIs to 2k.
- Enhanced overall system observability and stability by establishing 20+ of metrics monitoring boards for latency, QPS, and error rate of APIs, Cache, DB, etc.

Order Fee

- Maintained system to charge seller fees and buyer fees for orders, including Fee Calculation, Rule System, Seller Charging Notification, etc.
- Maintained Rule System of 2 types of sync cronjobs, 20+ APIs, 7 Kafka-based background tasks, which handles 1k+ active rules for 11 regions, with up to 1M+ shops for each rule.
- Enhanced system performance leading to the decrease of live issues from weekly to rare.
- Handled 30+ times live issues, saved financial loss for overcharging or undercharging of millions orders.

Awarded the Shopee Value Star

Achieved 'A-' performance in 2023

KNOWLEDGE

- Basic: Computer Networks, Data Structures and Algorithms, Operating Systems, Database.
- Software Development: System Design, Go, Python, Cron Job, RDB (MySQL), NoSQL (Redis), MQ (Kafka), Observability (Metrics, Log, Tracing), MicroService, etc.
- Distributed Systems: CAP, RPC Semantics, Serializability, Consensus, SMR (Primary-Backup, Paxos, PMMC, Raft), Distributed Transaction (ACID, 2PC, MVCC), Consistent Hashing, MapReduce, etc.
- Advanced: Machine Learning (Exploratory Data Analysis, Modeling, and Fine-Tuning); Deep Learning.
- Languages: Chinese, Native; English, Professional working proficiency.

For more details, refer to *Fenglyu's Doc* <https://doc.fenglyulin.com>, *Fenglyu's Log* <https://fenglyulin.com>, *Github* <https://github.com/ColaLinN>, and *Chinese blog* <https://colalinn.github.io>

PROJECTS

- *NUS CS5223 Distributed Systems Project: Shard Key-Value Store Server, similar to MIT 6.824 At-Most-Once, Viewstamped Primary-Backup, PMMC Paxos, 2PC-based Distributed Txn*

- *Twitter View History Plugin* <https://github.com/ColaLinN/Timeline>
- *Tree-based Machine Learning, Winner Prediction* <https://www.kaggle.com/code/kirklin/>
- *2D Bullet Hell Game, Cola's Dream* <https://github.com/ColaLinN/Coladream>
- *AES High Performance Implementation* <https://github.com/ColaLinN/AES-high-performance-implementation>