Long Le

+84 (356) 456-944 | long.luiz96@gmail.com | longleonardole.github.io | LongLeonardoLe | longntle

Skills

Programming C, C++, Java, Shell, Thrift, MySQL, Python, LaTeX
Operating Systems: Linux (fluent)
Software Netbeans, Visual Studio, GDB, PyCharm, Intellij
Languages Vietnamese (native), English (expert)

Experience

Lead Backend Software Engineer
Ho Chi Minh City, Viet Nam

Zalo Group - #1 messaging apps in Viet Nam
07/2018 - Present

- Maintain back-end database services performance with 54 million active users monthly and 1.5 billion messages daily
- Implement new features and improve performance of back-end database binaries, reducing the number of unnecessary read requests to disk by 80%, optimizing the allocation process for minimal fragmentation, etc.
- Implement a QoS system focusing on accuracy, real-time responsiveness to minimise system downtime by 50%
- Design Key-Value database architectures supporting Zalo features
  - Each architecture, usually contains hundreds of millions records, must fulfill requirements of collaborating teams and achieve survivability, scalability, and performance of serving 1000-24000 requests per second
- Research and evaluate on possible alternatives for storing data, especially media data such as images, videos, etc., aiming to optimize the storage of more than 20000 TBs of data with an annual increase of 30%
- Lead a team of 3 junior software engineers working server-side services of various new features for Zalo and internal tools, while training them on road map to handle more back-end services
  Notable Achievement: improved the media uploading process, reducing 20% execution time and 50% of RTTs among microservices, thus able to achieve system stability during all-time peak traffic in Tet 2020 serving nearly 40 TB of data within 30 minutes, which was 12 times higher than any prior peak.

Projects

SPECtate
2018

- Cooperated with the requirement team to refine and complete project documentations
- Designed story boards and contributed for the GUI development of the project in Python
- Collaborated with Agile team through peer and mentor code review for testable, maintainable, and quality-focused code

Secured Internet Relay Chat
2017

- Pair-developed IRC client and server using socket and multi-thread programming in Java
- Implemented rooms management, conversations, file transfer, private chat rooms, and secured messages
- Wrote the document for functions of the IRC in RFC-style

XV6 Operating System
2017

- Implemented new system calls, user commands, and file system protection for better usability of the OS using C
- Improved the scheduling process of the OS in term of fairness

Matching Algorithm in Ridesharing Problem
2016

- Researched related works and algorithms regarding path finding and matching problems
- Implemented the graph structure for conducted experiments in C++
- Cooperated with teammates and conducted experiments based on Dijkstras, Floyd-Marshall, and Hungarian algorithms with different input settings
- Collected notes from teammates, refined, and completed the final paper which can be found on: https://longleonardole.github.io/malgorithms.pdf

Education

Portland State University
Portland, OR, USA

B.S. in Computer Science
09/2016 - 06/2018

- GPA: 3.58/4.0

Ho Chi Minh City University of Science
Ho Chi Minh City, Viet Nam

B.S in Computer Science
10/2014 - 08/2016

- GPA: 3.62/4.0

Honors & Awards

2020 **Employee of the Year,** Zalo *Ho Chi Minh City, Viet Nam*