

Long Nguyen Thanh Le

☎ +84 (356) 456-944 | ✉ long.lui96@gmail.com | 📷 LongLeonardoLe | 🌐 longntle

Skills

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

Experience

Lead Backend Software Engineer

Ho Chi Minh City, Viet Nam

Zalo Group

07/2018 - Present

- Maintain back-end database services performance with 54 million active users monthly and 1.5 billion messages daily
 - Achieve service stability during all-time peak traffic in Tet holiday which was 12 times higher than weekly peak traffic.
- 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

Projects

SPEctate

2018 - present

- Analyzed source codes given by the sponsor for insight understanding
- 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
- Elective courses: Computer Security, Machine Learning, Malware, Internetworking Protocols, Database Systems

Ho Chi Minh City University of Science

Ho Chi Minh City, Vietnam

B.S in Computer Science

10/2014 - 08/2016

- GPA: 3.62
- Advanced Programs in Computer Science

Honors & Awards

2020 **Employee of the Year**, Zalo

Ho Chi Minh City, Viet Nam