

EDUCATION

- **University of Science, VNUHCM**
Bachelor of Computer Science; GPA: 8.0/10.0

Ho Chi Minh City, Vietnam
Aug. 2014 – Dec. 2018

PROFESSIONAL EXPERIENCE

Be Group

Senior Software Engineer

Nov 2022 - Present

- **Free Call and Chat Support System:** The Free Call and Chat Support System is a comprehensive solution that connects customers, drivers, restaurants, and BeGroup. It centralizes all interactions between these parties, providing a seamless communication channel for resolving issues and ensuring smooth operations. This system handles complex partner-related issues, offering timely support and feedback. The architecture was restructured and optimized to support millions of daily interactions, improving database performance, system scalability, and reliability under high loads.
 - Restructured and optimized the free call and chat support systems, focusing on improving database performance and system architecture to handle millions of interactions daily smoothly.
 - Revamped the customer relationship management (CRM) system by optimizing database design and query execution, ensuring scalability and efficient operation under high load.
 - Performed extensive database optimizations, including redesigning schemas, indexing strategies, and improving query performance, reducing latency and ensuring high availability for millions of daily interactions.
 - Implemented scalable solutions and load-balancing techniques to handle high-concurrency traffic, ensuring consistent performance and minimal downtime even during peak loads.

VNG Corporation

Senior Software Engineer

May 2019 - Sep 2022

- **vCloudcam:** vCloudcam is a Software-as-a-Service system designed for centralized camera management, enabling live view, playback, AI processing, and event alarms.
 - Designed and implemented solutions for managing distributed camera devices in a centralized system, ensuring seamless communication and scalability.
 - Built robust storage mechanisms to handle and store large-scale video data efficiently in a centralized architecture.
 - Developed systems to collect and monitor a high volume of metrics from distributed devices, ensuring real-time visibility and diagnostics.
 - Contributed to event analysis and alerting systems, enabling timely identification and resolution of critical events.
 - Debugged and resolved complex issues related to Linux operating systems on distributed devices, focusing on performance, connectivity, and reliability.
 - Improved system stability by identifying and addressing kernel-level issues and optimizing resource utilization on embedded Linux systems.
 - Designed and developed a cross-platform video player for both desktop and browser environments, leveraging Qt for native applications and WebAssembly for browser-based playback.
 - Optimized video playback performance, ensuring smooth streaming and compatibility across various devices and operating systems.
- **IoT Hub:** IoT Hub is an IoT management platform that enables the creation, management, and monitoring of IoT devices. Designed to serve as a central hub for communication and interaction among IoT devices, the platform handles millions of device interactions daily.
 - Conducted extensive research on time-series databases (e.g., InfluxDB, TimescaleDB) for managing and storing real-time IoT telemetry data.
 - Designed and implemented efficient data processing pipelines and communication mechanisms for IoT devices, ensuring low latency and high availability.

- Optimized the system architecture to handle high-load scenarios, achieving stability and reliability under peak traffic conditions.
- Focused on scalability to support rapid growth in IoT devices and data streams.

Software Engineer

Nov 2017 - Apr 2019

- **IoT Lab:** Conducted research and development on IoT platforms and devices, including Raspberry Pi and Arduino, focusing on IoT protocols and smart home systems. Designed and optimized high-load systems for real-time data streaming, ensuring stability and performance under peak traffic. Applied advanced techniques to handle millions of device interactions daily in VNG Campus IoT infrastructure.

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Software Engineer - Freelancer

Sep 2020 - Sep 2021

- **Portal Management:** Developed and maintained a service for managing user roles, permissions, accountants, companies, and contracts within the portal.
- **Notifications:** Worked on a notification service that included email, push, and in-app notifications, including user activity tracking and contract reminders.

PROJECTS

- **Telegraf Plugin:** Open source golang plugin for collecting and processing metrics for MongoDB.
- **VerneMQ Plugin:** Open source Erlang plugin of VerneMQ, for bridging data from VerneMQ to Kafka.
- **Music Player:** Music and Movie player application on desktop for learning FFMPEG and QT Framework.

PROGRAMMING SKILLS

- **Languages:** Go, Rust, Javascript, C/C++, Python
- **Technologies:** Docker, Kubernetes, GCP, Kafka, Apache Spark, Apache Flink,...