

Ngo Phu Chien

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EDUCATION

- **University of Science - VNUHCM** Ho Chi Minh City, Vietnam
Bachelor of Science in Software Engineering; GPA: 3.43 (8.59/10) *Aug. 2019 – Sep. 2023*

EXPERIENCE

- **MoMo** Ho Chi Minh City, Vietnam
Software Engineer *Sep 2023 - Present*
 - **Lac Xi 2024:** Optimized MoMo's critical gift verification system to handle peak loads during a high-traffic campaign, ensuring a seamless user experience by implementing caching strategies and streamlining workflows.
 - **Authentication Gateway:** Built a secure gateway system with Keycloak authentication and a custom rule-based authorization engine to control access to sensitive production configurations. A reverse proxy streamlines request routing, ensuring efficient and secure access management.
- **MoMo** Ho Chi Minh City, Vietnam
Junior Software Engineer *Jun 2022 - Sep 2023*
 - **Heo Dat MoMo - Donation Platform:** Maintained and enhanced Heo Dat MoMo, a popular charitable giving feature in the MoMo e-wallet, by ensuring service stability and developing a new user engagement feature with a virtual pig "growth" and rewards system.
 - **Promotion Platform:** Significantly improved the performance of MoMo's promotion platform by overcoming Firestore index limitations. Developed a streaming mechanism that reduced loading times by 95%, from 4 seconds to under 200ms, greatly enhancing the user experience.
 - **Lac Xi 2023:** Developed a high-performance inventory system using Google Cloud Bigtable for MoMo's Lac Xi 2023 campaign, ensuring accurate reward distribution to millions of users under peak load.
 - **Mission Platform:** Took ownership of and re-architected MoMo's mission platform, a legacy system, resulting in a more performant and scalable solution while preserving all existing features. This revamp achieved more than 6,000 user events per second with sub-200ms reward processing in production and reduced by a half in user complaints, demonstrating a significant improvement in user satisfaction.
 - **Idempotency Library:** Improved the reliability and performance of MoMo's reward distribution system by refactoring a core idempotency library, eliminating erroneous duplicate rewards and creating a more robust promotion/gamification experience for users.
- **MoMo** Ho Chi Minh City, Vietnam
ITC Trainee (Software Engineering Intern) *Nov 2021 - Jun 2022*
 - **Lac Xi 2022:** Built high-availability microservices from scratch under instruction. Designed a generic history format for seamless integration with other services, using REST APIs for mobile integration. Leveraged GCP's infrastructures (BigTable, BigQuery, Cloud Firestore, and Cloud Pubsub) to ensure reliable communication and system stability.
 - **Quiz Game (PigSchool):** Developed the back-end and optimized the database for a user-friendly quiz game administration tool. This reduced storage costs and improved efficiency while providing a safe and intuitive content management interface.

PROJECTS

- **DNS over HTTPS Resolver:** Built a Go-based DNS over HTTPS (DoH) resolver deployed on Vercel. This serverless function intercepts DoH requests, distributes them to multiple upstream DNS servers, and returns the fastest response to the client, minimizing latency and improving performance.
- **Vert.x Spring-like Routing:** Developed a Vert.x framework for building HTTP servers with annotation-based routing and Dagger 2 dependency injection, simplifying development and improving code organization.
- **AI Chat App:** Created a Flutter-based chat assistant application powered by the ChatGPT API, featuring speech-to-text functionality for intuitive voice interaction. The application leverages GetIt and RxDart for efficient state management and dependency injection.

PROGRAMMING SKILLS

- **Languages:** Java, Kotlin, Go, Python, JavaScript, SQL
- **Technologies:** Vert.x, gRPC, Bigtable, HBase, BigQuery, Firestore, MongoDB, Cloud Pubsub, Kafka, Redis, DragonflyDB, Starrocks