

# NGO XUAN LOC

## PERSONAL INFORMATION

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## EXPERIENCE

Over the last decade, I have held a range of positions related to software development including developer, technical leader, technical consultant and software architect. I also had opportunity to work in the biggest telecom in Vietnam and one of the top 20 worldwide material handling firms in the world. During this time, I gained a lot of knowledge about internet, client-server, database, distributed and micro-services system; especially, the experience of designing software and system.

## WORK HISTORY

*2017–Now*                  Fortna Vietnam

### *Software Architect*

As the main Software Architect at Fortna Product R&D, I am currently responsible for leading the technical architecture design and develop for the companys Warehouse Execution System (FortnaWES) product suite with the vision to become the market leader in Distribution Center fulfillment. The product suite is designed to be scalable and flexible to be efficient with various, multi-channel business sizes and models: Distribution Centers sizing from thousands of sqft to millions of sqft; different types of products: apparel, FMCG, auto parts ...; fulfill from Store or fulfill from DC. The FortnaWES is designed to help the businesses to intelligently manage the people, automation, systems, orders and processes within the Distribution Center.

Im also responsible for leading the software architecture to evolved from old styled monolithic architecture design into the modern, scalable micro-services architecture, moving from the VMWare deployment model into container-based deployment model that is more flexible and cloud-enabled.

Along with architecture design work, I also contribute to implementing FortnaWES in order to keep its following the design and achieve the expected quality, especially in developing the foundation libraries, frameworks and hardware-simulators. And few of them are created and maintained by me:

- JAVA-based frameworks that speeds up building lightweight, scalable, high availability, and high performance FortnaWES applications. It then is applied in various types of application: from simple applications (picking engine, packing engine, etc.) to complicated applications (order & workflow orchestrator engine, bot-director & mission management system), and auto-machine-based applications (high-speed unit sorter engine).

- The centralized integrated front-end system, which allows us split the big monolithic UI into many smaller parts. These parts can be developed in parallel by difference teams while still are being combined together easily. It keeps code base smaller, more manageable while increasing quality and development speeds.

- Light simulator and high-speed unit sorter simulator are the very helpful tools in developing FortnaWES applications. By simulating the behavior of hardware device, it increases the accuracy of applications without paying more money and time for setting up a real device.

Last but not least, researching is one of my important tasks as well. I lead a small team to explore new technologies, implement proof-of-concept and suggest the proposal for enhancing and optimizing FortnaWES.

*Founder* 2016–2017 YCTECH  
It is small team that was created by me and my friends focusing on out-source area. As a technical leader of team, my focus was on strategy, solution design and problem solving.

*Backend developer* 2015–2016 Viettel Group  
I worked for Viettel Group as a Backend and Big-Data Developer responsible for developing tools and system application for analyzing traffic on large network using many technologies like Kafka, Storm, Hadoop, Zookeeper, etc...

During this time, I was also responsible for the two large-scale projects:

- A system for realtime filtering and blocking spam SMS (Bronze Award in IT World Awards 2016) that handles almost 1,000,000 SMS/minute and successfully block 80-90% spam SMS in the entire carrier network.
- A realtime, large-scale storing and analyzing message system using HDFS and Map-Reduce technology that can handles over 1,000,000 messages/second.

*Android Technical Leader* 2012–2015 Wala JSC  
I was responsible for developing a messaging application on Android.

Besides developing UI, I spent almost time on benchmarking and improving libraries regarding the connection management, photo optimization, battery life optimization.

*Android Technical Leader* 2010–2012 CNC Software  
My responsibility was finding the efficient solution for customers bases on their concepts and requirements. It also included designing architecture of mobile application, the communication model with other service and working as developer in some projects.

In addition, I also spent time in research and building a few effective libraries/frameworks to improve development process, optimize UI rendering, battery and improve performance of application.

## PERSONAL PROJECT

### ***DronePlugins***

*Github* <https://github.com/locngoxuan?tab=repositories&q=drone-plugin>

*Description* Plugins are used in drone.io for customizing CI/CD pipeline.

*Tech-stack* GO, DOCKER

### ***Vulcan***

*Github* <https://github.com/locngoxuan/vulcan>

*Description* A simple docker-based build tool which brings to you independent and consistent build environment.

*Tech-stack* GO, DOCKER

### ***Xsql***

<i>Github</i>	<a href="https://github.com/locngoxuan/xsql">https://github.com/locngoxuan/xsql</a>
<i>Description</i>	It is a simple library in order to support us build up a native-sql application which is able to switch among database vendors easily
<i>Tech-stack</i>	GO
	<b>Sqlbundle</b>
<i>Github</i>	<a href="https://github.com/locngoxuan/sqlbundle">https://github.com/locngoxuan/sqlbundle</a>
<i>Description</i>	Sqlbundle is a database migration tool. It manages your database schema by creating incremental SQL changes. Current version is supporting PostgreSQL and ORACLE.
<i>Tech-stack</i>	GO
	<b>Buildpack</b>
<i>Github</i>	<a href="https://github.com/locngoxuan/buildpack">https://github.com/locngoxuan/buildpack</a>
<i>Description</i>	Buildpack is created in order to build up an independent and consistent environment for building and publishing application by using standard containers.
<i>Tech-stack</i>	GO, DOCKER
	<b>Hermes</b>
<i>Github</i>	<a href="https://github.com/hermes-solution">https://github.com/hermes-solution</a>
<i>Description</i>	This is centralization logging solution for on-premise docker swarm. Main purposes of its are providing traceability of flow in micro-services system, friendly web interface for debuggability. It also is able to connect to other logging solution like ELK and GrayLog
<i>Tech-stack</i>	GO, REACTJS, FLUENTD, CLICKHOUSE

## EDUCATION

	2013–2015	Military Technical Academy
<i>Master of Information Systems</i>		<p><i>Thesis: Genetic programming for time series forecasting</i></p> <p><i>Description:</i> This thesis explored the idea of genetic programming and the way its predict value in near future. Result was compared with result of ARIMA approach.</p> <p>Researched on distributed system and machine learning.</p>
	2010–2012	Hanoi - Aptech
<i>Higher Diploma Software Engineering</i>		<p>Learned programming, data structure and algorithms.</p> <p>Worked with the mini e-commerce projects using PHP, JAVA and learned to built ERP from scratch using JAVA.</p> <p>Developed a PHP-based MVC framework.</p>
	2006–2010	University of Engineering and Technology, Vietnam National University.
<i>Bachelor of Science in Engineering Physics</i>		<p>Built some simulation models base on Monto Carlo algorithm.</p> <p>I were self learning PHP and joining to build e-library of university.</p>

## SKILLS

<i>Proficient</i>	JAVA, GO, SHELL SCRIPT
<i>Familier</i>	NODEJS, REACTJS, RUBY ON RAILS, PHP, C
<i>Database</i>	Postgres, Redis, MySQL, MongoDB, SQLite, LevelDB, Oracle, HBase
<i>Tool and Technologies</i>	Git, SQL, NoSQL, Docker, Microservices, Distributed System
<i>Others</i>	Software and System design, Warehouse Operations, Warehouse Execution System

## OTHER INFORMATION

<i>Presentation</i>	2011 · Vietnam PHP day. Topic: <i>Building RESTful web-service using PHP</i>
<i>Languages</i>	VIETNAMESE Mothertongue ENGLISH · Good at reading. Listening, speaking and writing are normal