

Andy Le

ENGINEERING MANAGER

Ho Chi Minh City, Vietnam

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"We make a living by what we get, but we make a life by what we give", Winston Churchill

Summary

With 20 years of experience in software engineering, I specialize in security, machine learning, and large-scale payment systems. My customer-obsessed approach drives me to deliver strategic, technology-enabled solutions that bring substantial value to businesses and products. I am passionate about fostering an open engineering culture and developing talent. Outside of work, I enjoy learning, writing, and jogging.

Work Experience

FPT Pay

Ho Chi Minh City, Vietnam

ASSOCIATE ENGINEERING DIRECTOR

March 2025 - now

- Under the support of Group CTO, developed a transformation plan for the engineering organization to deliver faster and more efficiently. The plan includes: 1) Building a new engineering culture, 2) Building a new engineering organization, 3) Building a new engineering process, 4) Building a new engineering platform.
- Successfully led a small cross-functional team (5 engineers, 1 BA) to design and launch a critical Zero-to-One Loyalty product within an aggressive 2-month timeline. Pioneered the use of AI tooling to streamline development, including leveraging Gemini/Claude for requirements comprehension and code generation.

Nab Innovation Centre of Vietnam (NICV)

Ho Chi Minh City, Vietnam

ENGINEERING MANAGER

May 2023 - Dec 2024

- Managed a 20-person team in the International Payments domain (compliance, new business), resolving team conflicts and driving performance improvements. Partnered effectively with diverse stakeholders including Product, Compliance, and Executives.
- Discovered and reported a critical, company-wide security compliance vulnerability (Remote Code Execution risk) to the Chief Security Officer, providing clear evidence and proposing a solution. Collaborated on rapid remediation with the Application Security team, preventing a potential incident and closing a significant compliance gap.
- Used data-driven approach to identify major testing bottlenecks and \$100k/quarter AWS costs. Secured executive approval for process changes that doubled productivity and reduced cloud testing spend by 40%.

ZaloPay (VNG)

Ho Chi Minh City, Vietnam

ENGINEERING MANAGER < PRINCIPAL SOFTWARE ENGINEER < SENIOR SOFTWARE ENGINEER

Oct 2017 - May 2023

- Led a team in designing and developing high-performance distributed systems across multiple domains (Users, Growth, Compliance). Engineered systems to support significant scale (e.g., 40k rps @ <200ms p99 latency), ensuring low latency, consistency, fault tolerance, and high concurrency.
- Led Accounting Core team to design and build a scalable ledger database from the ground up (5k+ tps @ < 200ms p99 latency), tailored for operations and addressing technical accounting/data consistency at scale. Improved operational efficiency (accounting, support), fund control, and reconciliation.
- Initiated and led company-wide Open programs (Open Source, InnerSource, Blogging, Tech Talks) to cultivate an open engineering culture, improve collaboration, and enhance branding/knowledge sharing. Secured leadership support and drove adoption through personal example (external OS contributions). Achieved measurable results: 30 projects open-sourced, 50 blog posts published.
- Led cross-functional program to improve Developer Experience for Payment API integration. Addressed critical pain points by establishing company-wide API governance and delivering standardized SDKs, revamped documentation, and tooling.
- Created and led ZaloPay Edu (100+ freshers since 2018), a scalable program that established a reliable pipeline of quality engineers and reduced onboarding time. Included unique mentoring that guided freshers to contribute to key open-source projects, securing executive support.

Zalo (VNG)

Ho Chi Minh City, Vietnam

SENIOR SOFTWARE ENGINEER

May 2017 - Oct 2017

- Had research to improve caching for Zalo edge services

Evolas

Hanoi, Vietnam

COFOUNDER

Mar 2016 - Dec 2016

- A failed startup about Home Security with IOT devices. I learned hard lessons about building a product, managing a team and working with customers.

Viettel

SENIOR SOFTWARE ENGINEER

Hanoi, Vietnam

Oct. 2014 - Mar. 2016

- Led a team to build a massive-scale social listening product using open source components including: crawlers (written in Java & Scala), messaging (using ActiveMQ & Protobuf), analytics (using Spark, Python Scikit-learn) and storage (with HBase, Redis, ElasticSearch, MySQL)
- Researched on Statistics, NLP (Natural language processing) for sentiment analysis. I worked under the mentorship of several PhDs. They helped me efficiently learn & improve my knowledge on Machine Learning
- Optimized performance for Python microservice using ZeroMQ & Greenlet. I contributed into Gensim, a topic modelling framework, to speed up its nearest neighbour search (doc2vec)

MV Corp.

SOFTWARE ENGINEER

Hanoi, Vietnam

2013-2014

- Conducted various researches on Big Data technologies (Hadoop stack), Machine Learning & Text Mining algorithms such as SVM, Neural Network, Ensemble method, TF-IDF ... for detecting trends, related topics.
- Led a project of building a large-scale crawler based on Apache Nutch for collecting information from web and social networks

Hanoi University of Science and Technology

TEACHING ASSISTANT

Hanoi, Vietnam

2010-2012

- Gave lectures on Network programming & Security

Bkav Security Division, Bkav Corp.

SECURITY LEAD < SECURITY INTERN

Hanoi, Vietnam

2006-2013

- Researched extensively on Application Security, Reverse Engineering, Windows kernel system...
- Discovered several critical vulnerabilities in popular applications. The very first vulnerability of Google Chrome was submitted by me
- Presented my paper entitled "Unicode shellcode and improvements" at Bellua Cyber Security conference (2008). In the paper I demonstrated a novel idea on optimizing size of Unicode shellcodes.
- Later I fell in love with building products when leading a team to develop Bkav SecureDns for mass users

Presentation

Mobile Day 2022

Hochiminh, Vietnam

Jun. 2022

PRESENTER FOR <CHAOS ENGINEERING AT ZALOPAY>

- Introduced how my team ensure resilience for the most-critical system in ZaloPay with Chaos Engineering
- Introduced how we found and fixed a bug in Split-brain protection for Redis.

Bellua Cyber Security Conference

Jarkata, Indonesia

Nov. 2008

SPEAKER FOR <UNICODE SHELLCODE & IMPROVEMENTS>

- Introduced optimization techniques for Venetian Method to reduce size of Unicode Shellcode

Writing

ZaloPay Engineering

<https://engineering.zalopay.vn/>

2018-2023

FOUNDER, BLOGGER & EDITOR

- I created a platform & process for engineers sharing their stories while building ZaloPay
- Very first blogs were wrote by me & my team about Distributed Systems & Accounting

Homepage

<https://bigsonata.com/>

2018-now

OWNER

I shared personal stories about technologies & life. Some recent blogs include "Strategy formulation", "Engineers, Missionaries"

Education

HUST (Hanoi University of Science and Technology)

Hanoi, Vietnam

M.S. IN COMPUTER ENGINEERING

Sept. 2011- July. 2013

HUST (Hanoi University of Science and Technology)

Hanoi, Vietnam

B.S. IN COMPUTER ENGINEERING

Sept. 2005- July. 2010

Certificates

Professional Banking Fundamentals

Finsia

FINSLA

2024

Foundation of Everyday leadership

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Coursera

2022

Design-Led Strategy: Design thinking for business strategy and entrepreneurship

THE UNIVERSITY OF SYDNEY

Coursera

2022

Bitcoin and Cryptocurrency Technologies

PRINCETON UNIVERSITY

Coursera

2017

Extracurricular Activity

ZaloPay Open Source

FOUNDER & MAINTAINER

<https://github.com/zalopay-oss>

2018-2023

- I created a process for engineers to publish their open-source projects
- I'm also the maintainer of several projects, e.g: zalopay-oss/go-advanced, zalopay-oss/zalopay-edu

Vietnam Data Scientists

FOUNDER & ADMINISTRATOR

<fb.com/groups/vietnam.data.scientists>

2015-now

- I founded the group in 2015 to share my learning about Big Data first.
- The members have been grown fast (20k+ people as of Dec 2022). I worked with other administrators to manage day-to-day posts & organize various activities.

Open Source

CONTRIBUTOR

2015-now

- I contributed in several Open Source projects, e.g: MQTT.js, gensim, Apache Avro, Redis, Redhat Quarkus, Microsoft Dapr

Side Projects (developed with AI)

BUILDER

- AutoDoc: A Vibe-coded web application to automatically generate Word documents from templates.
- Beam: An Aws-hosted web application to transfer your files using light, locally, securely