

An Nguyen

Senior Software Engineer

Full-Stack & Platform

Remote, Vietnam (GMT+7)

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Profile

I have worked in software engineering for more than 15 years. My main areas are backend systems, database performance, and production reliability. At LeadDyno, I work on a platform that records more than **100M visits each day**.

Professional experience

LeadDyno: Affiliate-Tracking SaaS

Senior Software Engineer / Remote / Jul 2021 - Present

- Maintain the data layer and investigate performance problems on a platform that records **100M+ visits each day**. It connects to more than 40 commerce, payment, CRM, and marketing services.
- Reduced the Shopify app's p95 LCP from **20s to 2.1s**. The main problems were render-blocking assets, font delivery, and CDN configuration.
- Set up real-user Core Web Vitals reporting for LCP, FCP, CLS, INP, and TTFB. Reports show p75 and p95 by page, country, and connection type.
- Found that RDS had reached its 12,000-IOPS limit. Query and index changes reduced one enterprise dashboard from **31s to 2.5s** and a common query from **3.8s to 31ms**.
- Migrated a live 1.9-billion-row activity table with no downtime. RDS storage fell by about 50% to 2TB, and the AWS bill fell by 20%.
- Raised automated test coverage from 22% to 66%. Parallel CI reduced the test run from about 25 minutes to less than 10 minutes.

Technologies

Ruby on Rails, Sidekiq, MongoDB, MySQL, Redis, AWS, Grafana

VoicePing: Real-Time Multilingual WebXR

Software Engineer / Remote / Jan 2021 - Jul 2021

- Worked on shared WebXR tours, live translation, session state, and backend services for large 3D assets.
- Moved the 3D map renderer off the main thread with OpenLayers and OffscreenCanvas so that AR and VR frame rates stayed stable.

Technologies

Node.js, React, MySQL, Firebase / Firestore, Redis, AWS, WebXR

Stealth Startup (NDA)

Founding Engineer / Remote / Jun 2020 - Jan 2021

- Hired and onboarded the company's first six engineers.
- Built a multi-brand booking service for web, iOS, and Android. Row locking and a state machine kept concurrent reservations consistent.
- Led the mobile releases and ran an on-premises k3s cluster with shared logs, metrics, alerts, and dashboards.

Technologies

C# / ASP.NET, TypeScript / Node.js, React / Next.js, PostgreSQL, k3s, Docker

ComPlat - Karlsruhe Institute of Technology

Research Software Engineer / Germany / 2016 - 2020

- Worked on Chemotion ELN and added exact, structure, and substructure search for chemical records.
- Created ChemScanner to read chemical reactions from scientific documents. The *Journal of Cheminformatics* published the work in 2019.
- Connected the Rails and React interfaces to C/C++ chemistry tools through SWIG.

Technologies

Ruby on Rails, React, Python, C/C++, SWIG, Docker, GitLab CI/CD

Infnis Inc.

Software Engineer (Research) / Seoul, South Korea / 2014 - 2016

- Wrote C++ components, including ARP handling, for the PIUS user-space packet-inspection system.
- The system inspected raw network traffic at close to **10 Gbps** and searched it for dangerous patterns.

Technologies

C/C++, Boost

Cargigi (acquired by eBay Motors)

Software Engineer / Ho Chi Minh City / 2012 - 2014

- Built inventory tools for auto-dealer networks.
- Automated bulk Craigslist publishing and added operational reports to the internal CRM.

Technologies

ASP.NET

VNG Corporation

System Engineer / Ho Chi Minh City / 2011 - 2012

- Operated more than **200 dedicated servers** for a large Vietnamese MMORPG.
- Wrote tools for log parsing, server maintenance, and internal requests.

Technologies

PHP / CodeIgniter, Zabbix, Shell scripting

Education

Ph.D., Organic Chemistry, Karlsruhe Institute of Technology, Germany / 2016 - 2019

M.Sc., Aerospace Information Engineering, Konkuk University, South Korea / 2014 - 2016

B.Eng., Computer Science and Engineering, Ho Chi Minh City University of Technology, Vietnam / 2006 - 2011

Selected publications

Co-author of peer-reviewed work on ChemScanner, ChemSpectra, and Chemotion ELN in the *Journal of Cheminformatics* (2017-2021).

