Nguyễn Hoàng Vũ

Senior Software Engineer

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in Nguyễn Hoàng Vũ   ◯ SkyTik   ⚑ Nguyễn Hoàng Vũ

🪪 Profile

- A Software Engineer with 5+ years of experience building high-performance back-end systems for routing, mapping, and logistics optimization.
- Specialized in Node.js, FastAPI, and microservices architecture, with proven success in reducing API costs and improving operational efficiency.
- Passion for solving real-world problems that have a direct impact on end users.

💼 Professional Experience

Software Engineer → Senior Software Engineer   07/2021 – Present
Ahamove 🔗   Ho Chi Minh City, Vietnam
- Develop **routing, address, and dispatching services** for the Last Mile Delivery platform.
- Build **self-hosted geospatial databases**, cutting map API costs by **70%**.
- Develop **Route Optimization** using **Google OR-Tools** and **VROOM** for OnWheel SaaS reduce manually scheduling in major traditional enterprise client.
- Design **dispatching logic**, improving driver–order matching and reducing idle time by **30%**.
- Integrate **OSRM and Valhalla** to optimize route accuracy for a diverse fleet (motorbike, truck, van), **reducing driver feedback regarding navigation errors**.
- Contribute to **OpenStreetMap**, improve Vietnamese geospatial data quality.

Tech Stack: Node.js, Fastify, Python, FastAPI, Redis, Docker, MongoDB, AWS.

Back End Developer   06/2019 – 07/2021
CodeStringers   Ho Chi Minh City, Vietnam
- Developed backend services for a **Learning Management System (LMS)** platform.
- Implemented business logic to handle dynamic requirements in education systems.
- Designed and deployed scalable backend infrastructure on **AWS**.

Tech Stack: Node.js, MongoDB, AWS

Internship   01/2018 – 04/2018
Splus-Software JSC 🔗
- Assisted in backend development tasks and learned software delivery best practices in a team environment.

🎓 Education

Engineer   2015 – 2019 | Ho Chi Minh City, Vietnam
FPT University

🌐 Community Contributions

OpenStreetMap Contributor 🔗   2024 – Present
                                                                                      Ho Chi Minh City, Vietnam
- Enhancing Vietnamese mapping data and integrating it into routing optimization systems.

🎗 Awards

Tech Star   2024
Ahamove
  Awarded for developing route optimization features that attract new partners for Onwheel Saas.

The Impressive Project - Carta AhaMap   2023
Ahamove
  This award is issued to a team that helps improve Ahamove's map features, including Autocomplete and
  Geocoding.

📂 Projects

Fastify Boilerplate 🔗   04/2025
  A ready-to-use boilerplate of the Fastify framework, shipped with TypeScript, MongoDB, and Redis, follows
  best practices in folder structure, Dockerfile, and API development.

Pelias Client 🔗
  A fork from pelias-client built internally for Ahamove's usage. It's a client that works directly with
  Elasticsearch (Pelias Geocoder)

Polygon Lookup 🔗
  Re-innovate an old library, update to use new syntax, ship with Typescript and better data structure

🧠 Skills

Javascript, Typescript, NodeJS, Fastify, Expressjs

Python, FastAPI, Google OR-Tools, VROOM

Elasticsearch

Docker, K8S, AWS EC2, AWS EKS

Serverless Function, AWS Lambda, Google Cloud Run

Working Tools:
  • Jira
  • Slack
  • Telegram
  • Notion
  • Git: Gitlab, Github,...

On-site Requirement Gathering
  Engaging directly with end-users and partners to identify and solve "in-the-field" delivery challenges.