

Dang Hoang Nguyen

Software Engineer

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🎓 Education

Danang University of Science and Technology

Da Nang, Vietnam

Study Data Science & Artificial Intelligence

09/2021 – 09/2025

- Thesis Defense Score: **9.3 / 10**

Career Objective

I aspire to become a well-rounded Software Engineer capable of independently building complete projects from start to finish — covering backend services, frontend/web applications, mobile apps, and AI-powered systems.

My goal is to continuously improve my technical expertise, gain hands-on experience with modern tools and frameworks, and contribute to impactful projects that solve real-world problems.

🛠 Skills

Programming Languages: Python · JavaScript · TypeScript · Go · Dart

Frameworks & Technologies: ReactJS · NextJS · React Native · NestJS · Flutter · FastAPI

Databases & Infrastructure: PostgreSQL · Supabase · Firebase · AWS · Docker

AI & Agent Systems: LangChain · LangGraph · Qdrant

Tools: GitHub · GitLab

AI coding tool: Cursor, Claude code

Other: gemini api, openAI api, codegen openapi, shadcnUI

💼 Experience

Spartan

Software Engineer

11/2025 – now

- Designed and provisioned scalable cloud infrastructure on AWS using Terraform, implemented CI/CD pipelines with GitHub Actions, and established end-to-end observability with Datadog monitoring and alerting slack and built real-time communication systems using WebSocket and Server-Sent Events (SSE) for AI task streaming and progress updates.
- Developed a distributed AI Agent platform for generating images and PPTX slides from natural language ideas
- Designed AWS SQS-based queue systems with multiple workers for scalable AI task processing
- Implemented real-time AI image editing using mask regions and object segmentation
- Built Redis Cluster for caching, job state tracking, and performance optimization
- Worked across Fullstack, Backend, Infrastructure, and AI pipelines in a production-grade system

Tech Stack:

ReactJS · NextJS · Zustand · Redux Toolkit · React Query · TypeScript · Kotlin · PostgreSQL · Docker · AWS · Railway · Redis · Python · Terraform · ShadcnUI

SOC.ONE Company

Software Developer

10/2024 – 10/2025

- Developed two synchronized applications (**Web App + VSCode Extension**) connected to backend services via **WebSocket**
- Implemented **drag-and-drop automotive components** (speedometer, tachometer, line chart) with real-time data visualization and car camera video streaming
- Built **JSON-based component storage**, REST APIs for fetching saved components, and a visual editor for persistent prop customization
- Developed an **Enterprise Chatbot UI Agent** that enables natural language querying and Q&A over company datasets, allowing business users to interact with structured and unstructured data through an AI-powered conversational interface. Built with **Next.js** and **shadcn/ui** for the frontend, **FastAPI** for AI orchestration and API services, **PostgreSQL** for data storage, **Redis** for caching and session management, and **Docker** for containerized deployment, delivering a scalable and production-ready data intelligence platform.

Tech Stack:

React.js, Zustand, Axios, TailwindCSS, Shadcn, VSCode API, Next.js, React Query

Projects

Graduation Project – Multi-Agent System for Tax and Insurance Legal in Vietnam

Software Engineer

03/2025 – 06/2025

Key Features

- Conversation history management
- Streaming chat between user and AI agents
- Real-time agent mode visualization (researching, crawling, synthesizing)
- Synthesized results with data source rendering
- Incremental UI rendering via chunk parsing for smooth UX
- Backend streaming proxied through Next.js API routes

AI System

- Multi-agent architecture using **LangGraph**
- Vector search with **Qdrant**
- Agents: Researcher, File Analysis, Calculation, File Processing
- Crawled data from:
 - **Vietnam Law Library (Thư Viện Pháp Luật)**
 - **Vietnam Social Security (Bảo Hiểm Xã Hội Việt Nam)**
 - **General Department of Taxation of Vietnam (Tổng Cục Thuế Việt Nam)**

Tech Stack NestJS, NextJS, FastAPI, Docker, S3, PostgreSQL, Qdrant

Repositories

- Frontend: https://github.com/Yoriichi-Dang/vietlegal_web
- API: https://github.com/Yoriichi-Dang/vietlegal_server_api
- Agent: https://github.com/Yoriichi-Dang/vietlegal_agent

Languages

- English