

DOAN TRONG HIEU

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EDUCATION

Bachelor of Automation and Control Engineering, Ton Duc Thang University

2018 - 2022

EXPERIENCE

Software Engineer

04/2025 - Present

IPVM

Pennsylvania, United States

- Engineered an intelligent content editor with an embedded LLM-powered AI interface, enabling real-time writing assistance and automated content evaluation to streamline editorial workflows and reduce manual effort.
- Enhanced AI-powered browser extension with automatic YouTube video detection, transcript extraction, and intelligent chat interface that enables real-time video content analysis and querying 📺.
- Engineered AI-powered content translation system supporting 50+ languages with automatic translation based on user preferences and proactive pre-translation of new posts into 20 popular languages, enabling seamless multilingual content access for global enterprise users 🌐.

Full-Stack AI Engineer

06/2024 - 04/2025

FPT Software AI Center

Ho Chi Minh City, Vietnam

- Developed AI-powered applications leveraging large language models, intelligent agents, and computer vision technologies for various industries (automotive, healthcare, energy).

Full-Stack AI Engineer

05/2023 - 06/2024

VTC Education

Ho Chi Minh City, Vietnam

- Engineered an LLM-based chatbot system delivering company information, implementing AI agent architecture to streamline customer interactions and reduce support volume.
- Developed an image generation application leveraging Stable Diffusion models.
- Developed a synthetic media application that transforms static photographs into realistic talking videos with synchronized speech, enabling cost-effective content creation for marketing materials.
- Created APIs enabling AI models to extract and process structured data from presentation files (PPT, PDF), improving document intelligence capabilities for enterprise knowledge management.

AI Engineer

07/2022 - 05/2023

VinBigData

Ho Chi Minh City, Vietnam

- Engineered a voice biometrics solution that identifies age, gender, and regional accent, implementing end-to-end ML pipeline from data processing to model deployment with an intuitive user interface.

AI Engineer Intern

04/2022 - 06/2022

FuviTech

Ho Chi Minh City, Vietnam

- Oversaw inventory management and quality control for electronic components while delivering technical support to clients.
- Implemented a computer vision AI model that autonomously detects manufacturing defects in electronic components, reducing manual inspection time.

SKILLS

Programming Languages

Python, JavaScript, TypeScript, Ruby

Back End Development

FastAPI, NestJS, Ruby on Rails

User Interface Development

React.js, Next.js

Databases

PostgreSQL, MongoDB, Redis, Qdrant

DevOps

Docker, Kubernetes, AWS

Machine Learning


LangChain, LangGraph, LlamaIndex, PyTorch

Project Management


Jira, Confluence

PROJECTS


InfoForge: Conversational AI Platform02/2025 - 02/2025

- Description: Engineered LLM-powered conversational AI platform with autonomous agents for multi-source data synthesis, exploration, and automated content generation workflows .
- Tech Stack: FastAPI, React.js/Next.js, LangChain/LangGraph, RabbitMQ, Qdrant, Supabase, Docker, AWS, OpenAI

Automotive AI Assistant09/2024 - 03/2025

- Description: Engineered a multi-agent LLM-powered conversational vehicle interface with end-to-end voice processing pipeline (wake word detection, speech recognition, text-to-speech synthesis) and intent classification, enabling comprehensive vehicle control, navigation, personalized assistance, and multimedia management through natural language commands .
- Tech Stack: FastAPI, Vue.js/Nuxt.js, LangChain/LangGraph, Qdrant, MongoDB, Redis, Docker, Ollama

Gym Exercise Helper09/2022 - 10/2022

- Description: Developed a real-time gym exercise monitoring system using BlazeFace pose detection and LSTM neural networks, improving workout performance by counting exercise repetitions and providing feedback to users .
- Tech Stack: OpenCV, TensorFlow

Face Verification for Security Applications08/2022 - 09/2022

- Description: Developed a face verification solution using Siamese Network and OpenCV, leveraging deep learning techniques to compare and verify facial images .
- Tech Stack: OpenCV, TensorFlow

RoboVision: AI Mobile Robot08/2021 - 03/2022

- Description: Engineered self-driving robot system integrating SolidWorks-designed hardware, CNN-based computer vision algorithms for traffic sign detection and lane maintenance to improve road safety, and NVIDIA Jetson Nano for real-time edge AI processing.
- Tech Stack: OpenCV, TensorFlow

COURSES

- Building High-Level AI Applications with Language Models, Mindmaid
- System Design, Engineer Pro
- Backend Engineering, Engineer Pro
- Machine Learning Engineering, robusto.ai
- Data Structures and Algorithms, BigO Coding
- Artificial Intelligence, AI VietNam

03/2024 - 04/202403/2024 - 06/202402/2024 - 05/202401/2024 - 06/202410/2023 - 11/202405/2022 - 05/2023

CERTIFICATES

- TOEIC 835, IIG Viet Nam
- Mechanical Design, Dassault Systemes

04/2022 - 04/2024

REFERENCES

- Duc Tran, Dev Team Lead, IPVM |  duc@ipvm.com