



Tran Minh Duong

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About Me

I build and deploy production-ready ML systems with an eye for reliability and scalability. I have experience in designing and operating RAG (Retrieval-Augmented Generation) chatbot and document-based retrieval pipelines.

Looking for AI Engineering / MLOps roles where I can ship and improve model delivery.

Education

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| BSc La Rochelle University , Computer Science
• Student in exchange program | La Rochelle, France
Sept 2025 – present |
| BSc University of Science and Technology of Hanoi , Information and Communication Technology (Double Degree)
• Ranked 1st among Double Degree students
• GPA: 18.46/20 in Year 1; 18.50/20 in Year 2 | Hanoi, Vietnam
Sept 2023 – July 2025 |

Experience

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| ICTLab - USTH , Research Assistant
Contributed to research on context-aware fire detection using Visual Language Models
• Published the fire context awareness dataset to benchmark multimodal VLMs
• Evaluated Qwen2.5VL, InternVL3 and Gemma3 by implementing pipelines to compare accuracy, precision, recall, F1-score and inference latency
• Fine-tuned VLMs using PEFT/LoRA to boost model accuracy up to 85% - 90% | Hanoi, Vietnam
Mar 2025 – July 2025 |
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Projects

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| Legal Contract Analyzer 🔗
RAG Chatbot for understanding and extracting key information from legal documents
• Complete MLOps project with CI/CD and Monitoring
• Uses RAG with semantic search, embeddings + LLMs to retrieve relevant sections
• Techstack : Github Actions, FastAPI, vLLM, ChromaDB, Docker, Prometheus/Grafana | July 2025 – Aug 2025 |
| Fire Detection System 🔗
IoT-based real-time fire detection and alerting system
• YOLOv8 trained on 1k+ annotated flame/smoke images (0.85 mAP0.5 and Precision = 0.95)
• Integrated Dockerized inference with Telegram alerts for live notifications
• Techstack : Roboflow, Ultralytics YOLOv8, Docker, OpenCV | Mar 2025 – Apr 2025 |

Skills

Programming Languages: Python (proficient), Java, C++, Matlab, Bash
ML / DL: PyTorch, Hugging Face transformers, scikit-learn
Tools / MLOps: Git, Docker, CI/CD, FastAPI, Prometheus, Grafana
Languages: English C1 (IELTS 7.5), French B2 (DELFB2)

Awards

USTH Excellence Scholarship: 100% tuition coverage

Youth Union Certificate of Achievement (VAST): Recognition for contributions to academic community

Certificate of Achievement (USTH Learning Support Club): For contributions in teaching and mentoring

MOOC Certifications: Deep Learning in Python: CNN-based Image Classification

Extracurricular Activities

- USTH Artificial Intelligence Club - Computer Vision Specialist
- USTH Learning Support Club - Math & CS Mentor, taught 300+ students in Machine Learning, Calculus, Linear Algebra
- Founded **PioTech Club**, an active STEM community in Quoc Oai High School.