LE NGUYEN QUOC ANH

AI Engineer | Computer Vision | LLM Systems

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Professional Summary

AI Engineer candidate pursuing a B.Sc. in Artificial Intelligence at FPT University, with hands-on experience in computer vision research, LLM/RAG systems and production ML pipelines. Capstone research on multi-view pedestrian detection under partial supervision, spanning loss design, synthetic multi-camera data generation and a real-time detection demo. Industry experience at FPT Software building RAG chatbots and quality analytics solutions. Seeking AI Engineer / Machine Learning Engineer roles.

Technical Skills

Programming: Python
Machine Learning & Computer Vision: PyTorch, OpenCV, YOLO, ONNX, CUDA, object detection, multi-view detection, synthetic data generation
LLM & Agents: LangChain, LangGraph, OpenAI / Azure OpenAI, RAG, multi-agent systems
Engineering & Data: FastAPI, Docker, Git, PostgreSQL, Pandas

Work Experience

FPT Software Quy Nhon, Vietnam
AI Engineer Nov 2025 – Dec 2025

Battery Quality – HONDA (RAG/LLM Chatbot)

- Built an LLM-powered chatbot using a RAG framework for querying battery conditions and generating quality-improvement insights
- Implemented semantic search with Azure OpenAI Service and Azure Cognitive Search for vector-based document retrieval
- **Tech:** Python, LangChain, OpenAI SDK, Azure SDK, Azure Cognitive Search, Blob Storage

Data Analyst Intern Sep 2025 – Dec 2025

QAI Honda Vision (Automotive Quality Analytics)

- Processed and cleaned large-scale customer datasets; applied ML/DL models to detect quality patterns in automotive manufacturing data
- Built dashboards and visual reports; contributed to AI-driven analytical pipelines supporting operational decision-making
- **Tech:** Python, R, Dataiku, Jupyter Notebook, Machine Learning, Deep Learning, Excel

Projects

Multi-View Pedestrian Detection with Partial Supervision Capstone, FPT University (team of 4, supervised by Dr. Dao Duy Son); code release after SAC 2027 review 2026 – Present

- Co-designed a Ablation Loss (AABL) for bird's-eye-view heatmaps that stops penalising confident predictions on unlabelled background; integrated it and a detector pseudo-label loss into five architectures (MVDet, SHOT, MVDeTr, EarlyBird, TrackTacular) under one dropped-label protocol (20 / 45 / 60%)
- At 60% of labels dropped (Wildtrack MODA): MVDet 22.7 → 81.5, SHOT 4.9 → 66.7, MVDeTr 0.0 → 76.1 (88.1 with pseudo-labels); MultiviewX MVDeTr 0.0 → 88.8; precision $\geq$ 93% in every AABL run
- Built a Unity 2018 + Python pipeline that renders MultiviewX-format datasets from 1,256 PersonX characters with analytic calibration (median reprojection error $<$ 0.001 px); generated two datasets (800 frames, 4,800 Full-HD images, 406 identities) with a social crowd model whose statistics match the real Wildtrack square (38–40% stationary, 54–60% in groups, vs. 0% / 8% in MultiviewX)
- Built the demo system: Python inference server (PyTorch fp16), browser UI, live Unity stream over TCP, Kalman / Hungarian tracker, per-frame MODA scoring, calibration-free mode (YOLO + MapAnything), custom CUDA deformable-attention op (2.2–2.4× faster), Docker image; 2.3 Hz detection and 82–83% MODA live on an RTX 4050 6 GB shared with Unity
- **Tech:** Python, PyTorch, CUDA, Kornia, OpenCV, NumPy, YOLO, Detic, MapAnything, Unity, C#, Docker

Education

FPT University Ho Chi Minh City, Vietnam
Bachelor of Artificial Intelligence | GPA: 3.5/4 Sep 2023 – Present

Awards

2nd Place — SEAL Hackathon Spring 2026 Spring 2026
Built an Agentic RAG system capable of processing diverse enterprise data sources with high accuracy, performance and retrieval speed; awarded runner-up among competing teams.

Certifications

Dataiku: Core Designer, Advanced Designer, ML Practitioner, Generative AI Practitioner, Developer, MLOps Practitioner

Coursera: Machine Learning with Python, Databases and SQL for Data Science with Python