

Nguyen Thieu Huy

AI Engineer Intern

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OBJECTIVE

Final-year AI student seeking an AI Engineer Intern role to apply machine learning and deep learning skills in building practical, scalable AI solutions.

WORK EXPERIENCE

Institute of Electronics, Informatics and Automation

AI Engineer Intern

Hanoi, Vietnam

Month Year – Month Year

- Supported research projects in electronics, informatics, and intelligent automation systems.
- Developed data processing and algorithmic solutions using Python for applied research tasks.
- Collaborated with researchers on technical documentation and experimental evaluation.

AI Laboratory, Thuyloi University

AI Research Assistant

Hanoi, Vietnam

Month Year – Month Year

- Conducted research on Machine Learning and Deep Learning, focusing on data analysis and model development.
- Built and evaluated AI models using Python, PyTorch, and Scikit-learn on large-scale datasets.
- Reviewed and summarized international research papers (IEEE, arXiv) and presented findings in lab seminars.

PROJECTS

DentalGPT: Vietnamese Dental Healthcare AI Assistant

HuggingFace, PEFT/LoRA, LangChain, ChromaDB, FastAPI, Docker

Graduation Project Python, PyTorch,

- Fine-tuned an **8B-parameter LLM (DeepSeek-R1)** using LoRA/PEFT for Vietnamese dental healthcare applications.
- Built a **RAG** pipeline with ChromaDB vector store, FAISS indexing, and KeyBERT-based keyword extraction.
- Developed a FastAPI backend with **streaming inference** and support for multiple reasoning modes.
- Implemented **Chain-of-Thought prompting** with structured outputs to enhance medical reasoning and response consistency.
- Assessed generation quality using **Perplexity** and semantic similarity metrics (BLEU, ROUGE, METEOR, BERTScore).

3D Human Pose Estimation

Python, PyTorch, Graph Neural Networks, Computer Vision

- Designed and analyzed **GraphMLP**, a lightweight architecture combining **MLP-Mixer and Graph Convolutional Networks** for 3D human pose estimation from 2D keypoints.
- Achieved **49.2 mm MPJPE on Human3.6M**, outperforming MLP-Mixer, GCN, and PoseFormer while using **70% fewer parameters**.
- Demonstrated strong **cross-dataset generalization** on MPI-INF-3DHP (MPJPE = **80.1 mm**) and efficient scalability to video-based pose estimation.

Fire and Smoke Detection (RGB-Thermal pair images)

PyTorch, OpenCV, YOLO

- Developed a multi-modal object detection system using visible and thermal images.
- Designed a dual-backbone **mid-fusion architecture** for robust fire and smoke detection.
- Achieved mAP@0.5 of **78%** on a custom RGBT dataset.

EDUCATION

Thuyloi University

B.S. in Artificial Intelligence & Data Science

Hanoi, Vietnam

Aug 2022 – May 2026

- **GPA:** 3.03/4.0

- **Relevant Coursework:** Machine Learning, Deep Learning and Applications, Statistics

HONORS & AWARDS

Best Paper Award — ICAI 2025: For the paper “AMAF-Net: Training-Free Multi-Modal Alignment for Fine-Grained Counterfeit Fruit Detection”.

Academic Excellence Scholarship: Two consecutive semesters.

CERTIFICATIONS

DeepLearning.AI Deep Learning Specialization: Neural networks, CNNs, RNNs, sequence models, optimization.

Samsung Innovation Campus - AI Course: Completed with Very Good grade

English Proficiency: CEFR (B2 – good at Speaking), Vietnamese (Native)

SKILLS

Languages: Python, C++, C

Frameworks: PyTorch, Sklearn

Computer Vision: YOLO, CLIP, ViT, OpenCV

NLP: Transformers, BERT, LLaMA, QLoRA

MLOps: Docker, Git, Linux, MLflow

Tools: Jupyter, VSCode, Pycharm