

HO DINH TRI

AI Agent & LLM Systems Enthusiast

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EDUCATION

University of Science, VNU-HCM

Bachelor of Science in Information Technology GPA: 3.82 / 4.0 (8.94 / 10)

Ho Chi Minh City, Vietnam

Sep. 2024 – Expected June 2028

- **Specialization:** Computer Networks & Telecommunications with a focus on Information Security.
- **Relevant Coursework:** Machine Learning, Operating Systems, Database Systems, Computer Networks, Cryptography.

TECHNICAL SKILLS

AI Agent & LLM Systems: Agent Orchestration, LangChain, RAG Pipelines, Tool Integration, Structured Prompting, LoRA Fine-tuning.

Data Ingestion & ML: Document Analysis, Vector Search (pgvector), FastEmbed, scikit-learn, XGBoost, Evaluation Metrics (chrF++, ROC-AUC).

Backend & Cloud Ecosystem: Python, FastAPI, Azure, PostgreSQL/Supabase, RESTful APIs, Docker, CI/CD (GitHub Actions), Caddy.

Programming Languages: Python, C++, SQL, Bash, JavaScript/TypeScript.

FEATURED PROJECTS

SmartATS – Intelligent Agentic Recruitment Platform

Python, LangChain, FastAPI, pgvector, Sentence Transformers, Azure, Supabase

July 2026 – Aug. 2026

- Architected an autonomous agentic recruitment system across **10 domain modules**, automating enterprise resume ingestion, multi-modal signal extraction, and asynchronous candidate enrichment.
- Engineered a hybrid retrieval engine utilizing **768-d multilingual embeddings** and HNSW indexing in PostgreSQL, orchestrating agent tool-calling for constraint-based candidate evaluation.
- Constructed an **LLM telemetry and observability layer** on Azure tracking token usage, inference latency, and operational costs, coupled with ABAC masking for access control.

Automobile Insurance Fraud Detection System

Python, scikit-learn, XGBoost, SMOTE, Streamlit, Docker Compose, Caddy

Feb. 2026 – Apr. 2026

- Engineered an end-to-end predictive analysis pipeline with **145 engineered features** from claim records using date attributes, customer tenure, and categorical encoding.
- Tuned an XGBoost classifier with SMOTE in a leakage-safe cross-validation pipeline, improving fraud recall by **46.6pp (18.4% to 65.0%)** with **0.63 F1-score** and **0.840 ROC-AUC**.
- Deployed a configurable Streamlit decision-threshold UI and containerized workflows using **Docker Compose with Caddy** reverse proxy for production-ready scoring.

RESEARCH EXPERIENCE

Multilingual Medical Conversation Summarization (Meddies)

Research Contributor

Ho Chi Minh City, Vietnam

July 2026 – Present

- Developed an end-to-end intelligent document summarization pipeline across **17 languages** using fine-tuned Qwen3-4B LoRA and mT5, reaching **54.59 validation chrF++**.
- Designed a **5-layer evaluation framework** combining character metrics and multi-provider LLM judges to eliminate cross-lingual tokenization bias for complex Asian scripts.
- Implemented an automated response validation gate with bounded retry logic, elevating empirical **ConstraintScore from 85.9% to 99.5%** to guarantee response correctness and completeness.

Context-Aware Infrastructure Analysis & Agent Tooling (Checkov)

Research Contributor

Ho Chi Minh City, Vietnam

Feb. 2026 – Present

- Investigated automated engineering document and code analysis frameworks using policy-as-code and **graph-based inter-resource relationship modeling**.
- Analyzed AST and multi-framework scanning engines across **29 runners** (Terraform, K8s) and an ecosystem of **1,346 verification rules** for structured defect detection.
- Engineered translation of static findings into machine-readable schemas (**SARIF, CycloneDX, JSON**) to serve as structured tool inputs for downstream AI Agent workflows.

ACHIEVEMENTS

Academic Merit Scholarship

Faculty of Information Technology, HCMUS

Jan. 2025 & Jan. 2026

- Awarded for **two consecutive academic years** (Sem 1 – Year 1 & Sem 1 – Year 2) for maintaining top-tier academic standing (GPA: 3.82 / 4.0).