

HUYNH VIET TIEN

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[Portfolio link](#)

GOALS

Short-term: Apply and expand my expertise in transformer architectures and scalable AI system design to deliver high-impact, production-ready solutions for the organization.

Long-term goals: Grow into a technical leadership role where I can drive innovation, lead projects, and contribute to building a world-class AI engineering culture that accelerates the organization's success.

EDUCATION

VNUHCM – University of Information Technology

September 2022 –
May 2026 (expected)

- Major: Artificial Intelligence
 - Academic performance: Good (GPA: 3.26/4)
- Achievements:
- First-year excellence scholarship 2024

SKILLS & CERTIFICATE

- **IELTS:** 6.5
- **Expertise:** Machine Learning | Computer Vision | NLP | RAG
- **Programming Languages:** Python | PHP
- **Web Development:** Full-stacked | Jquery | AJAX | NPM
- **Framework:** FastAPI | Flask | Scikit-Learn | ReactJS
- **Tools & Platforms:** Linux | Docker | Gitlab | Kaggle | Github Actions
- **Database:** MySQL | PostgreSQL | Vector Database

EXPERIENCE

AvePoint Trainee Program 2025 — Developer Track

November 2025 –
Current

- Selected as a **Tier A Trainee** (highest tier) with performance-based allowance.
- Completed an intensive in-person full-stack training program in a multinational English-speaking environment, collaborating daily with **Chinese and Singaporean engineers**.
- Gained **full-stack skills:** C#/.NET, REST APIs, SQL, React, responsive UI, plus foundations in AI, system architecture, and security.
- Delivered multiple end-to-end mini-projects and hands-on assignments.
- Strengthened professional skills: Git workflows, SDLC, documentation, and cross-cultural teamwork.

National Marketing Manager of Data & Automation – AIESEC in Vietnam

July 2025 – Current

- Led the national data & automation team, owning end-to-end design and deployment of the core real-time analytics platform.
- Rebuilt the fragile Webflow → Sheets workflow into a stable Next.js + MySQL ingestion pipeline, reducing form-loss from ~20% to ~1% (95%) at ~20 form submissions/sec during AIESEC Vietnam recruitment campaigns, and scaled the system to reliably handle data for multiple nationwide programs (Leadership Conference, “Heading for the Future”, Global Volunteer, Global Talent, etc.).
- Designed REST APIs and optimized SQL for fast form/UTM queries with proper caching.
- Built a complete UTM tracking system (short links, tagging, click/unique analytics, dashboards, automated email workflows).
- Developed **AI-driven clustering** (K-Means + embeddings) for youth segmentation and conducted NLP-based market research to improve campaign targeting.

Fresher Web Development – TGN DIGITAL

July 2024 – October 2025

Project: Ttcenter | Leximco | Navisdanang | Utopia | baboohouse | Auravibe

- Contributed to the full development and optimization of multiple business and e-commerce websites. Updated and expanded MySQL databases to support new modules reducing average query response time by up to 30%.

PROJECTS

Multimodal Video Retrieval Engine with Vision and Text

June 2024 – October 2024

- Participated in AI Challenge 2024 on real-world video event retrieval for Ho Chi Minh City inspired by international competitions such as Lifelog Search Challenge and Video Browser Showdown.
 - Led a 3-member team to design the end-to-end retrieval pipeline, coordinating OCR, ASR, embeddings, and database modules.
 - Integrated OCR, ASR, CLIP embeddings, object detection, and audio analysis, achieving 90%+ accuracy on 100+ video clips with <1.5s query latency over 100+ hours of data.
 - Technology: Python, Javascript frontend, Whisper, Faiss, VLM, FastAPI, ElasticSearch
- Results: Delivered a fully functional, performance-tested prototype—even though the team did not receive an award in the competition.

Retrieval of Optimal Objects for Multi-modal Enhanced Language and Spatial Assistance

April 2025

- Participated in ROOMELSA Grand Challenge on 3D masked-object retrieval using natural language and spatial context.
- Implemented the reranking module, improving retrieval accuracy by combining CLIP + InternVL embeddings with semantic phrase extraction and multi-scale image patching.
- Technology: Python, Faiss, VLLM: InternVL, CLIP, PyTorch.

Results: Awarded 4th place in the ROOMELSA Grand Challenge. Successfully published a workshop paper as a co-author, contributing research ideas and implementation insights.

Signboard detection using YOLO

November 2024

- Built a YOLO-based system for detecting Vietnamese shop signboards.
- Led the performance evaluation process by testing multiple YOLO models, validating results with mAP metrics, and making final decisions on the optimal configuration.

- Proposed and implemented Albumentations-based augmentation to replace traditional augmentation methods, significantly improving data diversity and model robustness.
- Technology: Python, YOLO, Albumentations.

Results: **2nd Place Winner** and developed **ideas with real-world impact**.

Adaptive Agent-Guided Dynamic Programming for Temporal

July 2025 – December

Optimization in Multi-Event Video Retrieval

2025

- Participated in AI Challenge 2025 on real-world video event retrieval for Ho Chi Minh City inspired by international competitions such as Lifelog Search Challenge and Video Browser Showdown.
- Owned the embedding pipeline, managed and refactored the CLIP and OCR modules into clean, modular services, improving maintainability and cross-team integration.
- Designed vector search architecture with Milvus (1000+ dims) and optimized performance using Redis caching (-70% latency).
- Built the React/TypeScript frontend with an integrated OCR/CLIP search.
- Technology: Python (FastAPI, PyTorch), React/TypeScript, Milvus, Redis, PostgreSQL, Docker

Results: Surpassed **797** teams and 4,000+ students to reach **Top 24 “Potential Award”** teams, contributed to the **Ho Chi Minh City Week of Innovation, Science, Technology, and Creative Starups 2025 (WISE HCMC+ 2025)**, earning an invitation to the **international SolCT conference** held in Nha Trang.

RESEARCH PAPERS

Adaptive Agent-Guided Dynamic Programming for Multi-Event Video Retrieval

December 2025

Accepted at SolCT Workshop 2025 — to be presented Dec 12–14, Nha Trang, Vietnam

Optimizing Video Retrieval via Dynamic Programming on Sequential Event Chains

October 2025 – Present

Academic Research Project

Retrieval of Optimal Objects for Multi-modal Enhanced Language and Spatial Assistance (ROOMELSA)

April 2025

Published, Journal of Visual Communication and Image Representation

Link:

<https://www.sciencedirect.com/science/article/pii/S0097849325002419>

HONORS & AWARDS

Top 24 / 797 teams — “Potential Award”, AI Challenge - Ho Chi Minh City 2025

November 2025

Top 4 — ROOMELSA Grand Challenge

April 2025

Top 2 — TEMPO RUN: Signboard Detection Challenge

November 2024