

VIET LINH NGUYEN

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PROFESSIONAL SUMMARY

AI Engineer and final-year Information Technology student with experience building LLM agents, retrieval systems, real-time AI services, and full-stack products. Proficient in Python, Go, and TypeScript, with hands-on work in tool calling, agent memory, multimodal processing, evaluation, and production-oriented backend systems. First author of a peer-reviewed computer-vision paper on automated drug identification.

TECHNICAL SKILLS

Programming: Python, Go, TypeScript/JavaScript, SQL.

AI and ML: LangGraph, LangChain, agent workflows, tool calling, RAG, hybrid search, pgvector, YOLO, Vision Transformers, LoRA/QLoRA, DPO/ORPO.

Backend and Data: FastAPI, Node.js, PostgreSQL, Redis, MongoDB, REST/gRPC, SSE.

Systems and Frontend: Docker, Linux, CI/CD, WebRTC, LiveKit, Next.js, React.

EDUCATION

Hanoi University of Industry (HaUI)

Bachelor of Information Technology, GPA: 3.34/4.00

Hanoi, Vietnam

2022 – 2026 (*Expected*)

- Second Prize, Student Scientific Research 2024–2025, for “Bitter,” an automated drug identification and information system.

PROFESSIONAL EXPERIENCE

Swork Joint Stock Company (Swork JSC)

Full-Stack / AI Engineer

Hanoi, Vietnam

Dec 2025 – Mar 2026

- Developed a real-time meeting assistant using LiveKit/WebRTC and Whisper for streaming audio transcription and meeting analysis.
- Built an LLM retrieval workflow for meeting summaries and action-item extraction, with vector search and context-aware prompting.
- Implemented Go backend services, React interfaces, VAD processing, and asynchronous queues for concurrent audio workloads.

ADVANCED AI TRAINING

Vingroup–VinUniversity Practical AI Talent Training Program

Selected Trainee, Cohort 2; Lab Coach

Hanoi, Vietnam

May 2026 – Present

- Selected for a 12-week intensive program centered on applied AI projects and mentor-guided technical training.
- Built **Lumen**, a team literature-review system, during the first six-week project phase; contributed to deep-research jobs and SSE APIs, assistant intent routing and session state, paper search, retrieval, and test reliability.
- Completed labs in agents, MCP/A2A, memory, GraphRAG, observability, evaluation, LoRA/QLoRA, and DPO/ORPO; subsequently supported Cohorts 3 and 4 as a Lab Coach.

Bitter – Automated Drug Identification and Analysis | *First Author*

Sep 2025

- Published “Research and Application of APIs and Vision Transformer for Drug Identification and Analysis” in the *HaUI Journal of Science and Technology*, Vol. 61, No. 9E.
- Developed a pipeline using YOLO11s for pill detection, fine-tuned Swin-B features with KNN classification, and openFDA, Pharmacy, and Gemini for drug information retrieval.
- Evaluated on VAIPEPill 2022 with more than 30,000 images and 108 classes; reported 85.09% mAP@0.5 for detection and 89% classification accuracy with an 87.50% F1-score.

SELECTED PROJECTS

ATrips – Tool-Using AI Travel Planner | *LangChain, Next.js, PostgreSQL, PostGIS*

Dec 2025 – Mar 2026

- Built a multi-stage agent workflow for intent classification, planning, tool selection, and response synthesis, with fallbacks, caching, and rate limiting.
- Integrated travel, place, flight, accommodation, and weather services; added SSE streaming, document ingestion, and geospatial recommendation queries.

Mentee – Learning-by-Teaching AI Agent | *Go, Next.js, PostgreSQL*

Jul 2026 – Present

- Built the initial application foundation for a Vietnamese learning-by-teaching system in which students teach an AI learner through structured conversations.
- Reviewed 20 sources and designed a pilot protocol with measurable agent failure modes, including answer leakage, persona drift, ungrounded questions, and repetition.

InterviewX – Real-Time AI Mock Interviewer | *LiveKit, Gemini, FastAPI, Next.js*

2026

- Developed a bidirectional voice interaction pipeline with a decoupled Python worker, VAD, interruption handling, and Gemini native audio.
- Implemented CV/JD analysis, contextual interview generation, session memory, and a live dashboard for transcripts and evaluation results.