

LOC NGUYEN HUU

+84 814147090 • Email • LinkedIn

PROFESSIONAL SUMMARY

- Graduate of Hanoi University of Science and Technology (HUST) with a Bachelor of Engineering in Automotive Engineering (Advanced Program), possessing a strong technical and analytical foundation, now specializing in Backend Development and Artificial Intelligence (AI).
- Experienced in designing, developing, and deploying complex backend systems using C# (.NET Core), microservices architecture, databases (MySQL), and message queuing systems (Kafka, RabbitMQ) to ensure performance and scalability.
- Proficient in AI development and application: Customizing and integrating AI models/platforms (Python, RAGFlow, Langchain, Langgraph) into practical applications such as intelligent chatbots, business process automation, and decision support systems.
- Proven technical leadership experience (Team Lead), focused on building effective software solutions, solving business problems, and enhancing user experiences.

EDUCATION

B.S.E. Advanced Automotive Engineering Program 09/2020 - 4/2025
School of Mechanical Engineering, Hanoi University of Science and Technology
Degree Classification: Good

PROJECT EXPERIENCES

Project 1: Product Management System for E-commerce Website *Team Lead, Backend Developer* 11/2023

- **Responsibilities:** Led the development team; Defined the system architecture (including RESTful APIs); Designed the database schema (MySQL) and data models; Performed business analysis and designed workflows; Implemented data synchronization mechanism with the Cin7 system; Coordinated with the frontend team.
- **Project Functionality:** Provide a backend system for managing (add, edit, delete, search, classify) products on the e-commerce website, ensuring two-way data synchronization with the Cin7 inventory management system.
- **Key Achievements:** Successfully deployed a stable product management system, enabling efficient management of thousands of SKUs. Ensured accurate and real-time data synchronization with Cin7, eliminating data discrepancies and improving warehouse operational efficiency.
- **Tech Stack:** C# (ASP.NET Core), MySQL

Project 2: Inventory Tracking and Management Software *Team Lead, Backend Developer* 02/2024

- **Responsibilities:** Managed and led backend development; Designed the system architecture (deployed on K8s) and optimized database (MySQL), integrated Kafka for event processing; Analyzed business requirements to define inventory alert logic; Developed automated workflows to monitor inventory and send threshold-based alert notifications.
- **Project Functionality:** Provide a software solution for real-time inventory monitoring, automatically generating and sending alerts when stock levels reach critical thresholds, supporting proactive and efficient inventory management.
- **Key Achievements:** System operates stably on K8s, efficiently handling large volumes of inventory data and events via Kafka. Helped the business manage inventory proactively, minimizing stockouts or overstock situations (e.g., reducing stockout rates by X%), optimizing inventory turnover.
- **Tech Stack:** C# (ASP.NET Core), MySQL, Kubernetes (K8s), Kafka

Project 3: Internal Accounting Software *Team Lead, Backend Developer* 03/2024

- **Responsibilities:** Supervised design and development; Built system architecture (microservices on K8s); Designed the database (MySQL) with paging techniques, integrated RabbitMQ for asynchronous processing; Performed business analysis, mapped accounting process flows; Developed modules for complex accounting logic, automated reconciliation, and posting; Built data backup mechanisms; Integrated data collection from e-commerce platforms (Shopee, Lazada, TikTok Shop).
- **Project Functionality:** Provide an internal accounting support system, automating business processes (recording revenue/expenses from e-commerce platforms, reconciliation, posting), ensuring data accuracy and integrity, supporting financial reporting.
- **Key Achievements:** Significantly reduced manual accounting workload (e.g., 50% reduction in data entry and reconciliation time). Automated recording and posting from e-commerce platforms, ensuring accuracy and timeliness of financial data. Microservices

architecture on K8s with RabbitMQ ensured scalability, fault tolerance, and stable operation.

- **Tech Stack:** C# (ASP.NET Core), MySQL, Microservices, Kubernetes (K8s), RabbitMQ

Project 4: E-commerce Website with Integrated AI Chat Assistant *AI Application Developer*

12/2024

- **Responsibilities:** Developed an AI chat assistant; Integrated the virtual chat agent into the e-commerce website using the customized RAGFlow platform; Built functionality to manage (add, edit, delete) the Vietnamese knowledge base for RAG.
- **Project Functionality:** Enhance the customer support experience on the e-commerce website through an AI chat assistant capable of understanding and automatically responding to queries in Vietnamese, providing real-time support.
- **Key Achievements:** Successfully deployed the AI virtual assistant, automatically handling (e.g., 60-70%) basic customer support requests in Vietnamese, reducing the load on support staff, improving response times, and increasing customer satisfaction.
- **Tech Stack:** C# (ASP.NET Core), Python (RAGFlow), MySQL

Project 5: Order Management System with AI Integration and Automated Messaging *Team Lead, Full Stack Developer*

03/2025

- **Responsibilities:** Spearheaded system design and development; Designed architecture and database (MySQL) for managing orders, inventory, and customer data; Developed complex workflows and business logic integrating AI (using RAGFlow) for predictive analytics and order processing support; Integrated automated messaging system (via Chatwoot API); Developed an Agent using RAGFlow to automatically respond to customer messages/queries about orders; Coordinated with cross-functional teams.
- **Project Functionality:** Efficiently manage orders for multi-channel retail operations, using AI (RAGFlow) to automate message responses and customer care, while automatically sending order confirmation/update notifications.
- **Key Achievements:** Automated (e.g., 70-80%) responses to common customer order inquiries via the AI Agent, reducing support staff costs. Accelerated order processing and improved customer experience through accurate, automated notifications via Chatwoot.
- **Tech Stack:** C# (ASP.NET Core, Entity Framework), Python (RAGFlow), MySQL, Chatwoot API

WORK EXPERIENCES

Vissoft

11/2023 - Now

Versatile Software Developer **Responsibilities: Leader, System Design, Back-end, Front-end, and Business Analysis**

- Led the design and development of scalable software architectures, ensuring efficient integration of system components.
- Developed and maintained both back-end and front-end functionalities for various web applications.
- Conducted business analysis to gather requirements, streamline workflows, and enhance system performance.
- Collaborated with cross-functional teams to ensure seamless communication between technical and business stakeholders.

HONORS & AWARDS

First Prize – Graduation Defense Council (Semester 20242)

02/2025

- Department of Automotive and Specialized Machinery, School of Automotive and Power Machinery, Hanoi University of Science and Technology.

Third Prize – SME-DRIMAES Student Projects Contest

07/2023

- Awarded by the School of Mechanical Engineering (SME) and DRIMAES.
- Presented by Chris Koo (SVP Worldwide Sales of DRIMAES) and Assoc. Prof. Truong Hoanh Son (Dean of SME).

RECENT PUBLICATIONS

- **A Numerical Simulation and Optimization of Fluid Cooling System for Electric Vehicles Battery.** Conference paper. First Online: 13 July 2024, pp. 189198. Proceedings of the International Conference on Sustainable Energy Technologies (ICSET 2023). Authors: Le Bac Pham, Huu Loc Nguyen, Lam Hoang, Xuan Tung Lam Nguyen, Ngoc Khanh Duong & Van Sang Pham. **Link:** https://link.springer.com/chapter/10.1007/978-981-97-1868-9_20
- **APPLICATION OF TECNOMATIX IN SIMULATION AND OPTIMIZATION OF MANUFACTURING PROCESSES IN THE FACTORY.** Conference paper. Authors: Hoang Lam¹, Nguyen Huu Loc¹, Nguyen Xuan Tung Lam¹, Pham Le Bac¹, Pham Van Sang^{1*}. **Link:** <https://jst-hauu.vn/media/31/ufile-upload-no-title31498.pdf>

SKILLS

- **Programming Languages:** Python, C# (.NET Core), Java
- **Backend Development:** ASP.NET Core (Web API), RESTful API Design, Microservices Architecture, Entity Framework
- **AI / Machine Learning:** RAG (RAGFlow), LLM Integration (Langchain, Langgraph), AI Chatbot Development, Natural Language

Processing (NLP) Concepts

- **Databases:** MySQL
- **Message Queues & Event Streaming:** RabbitMQ, Kafka
- **DevOps & Tools:** Docker, Kubernetes (K8s), Git, CI/CD Principles, Linux (Ubuntu)
- **Methodologies:** Agile/Scrum
- **Languages:** English (TOEIC 650 - expected 05/2025), Vietnamese (Native)

HOW I CAN CONTRIBUTE

- **Architect and Build Scalable Backend Systems:** Leverage extensive experience with C# (.NET Core), microservices architecture (on K8s), database design (MySQL), and message queues (Kafka, RabbitMQ) to design, develop, and deploy robust, high-performance backend systems capable of handling complex business logic and high traffic volumes, ensuring reliability and scalability.
- **Develop and Integrate Practical AI Solutions:** Apply expertise in Python and AI frameworks/platforms (RAGFlow, Langchain, Langgraph) to customize, develop, and seamlessly integrate AI capabilities into applications. This includes building intelligent chatbots, automating workflows (e.g., document processing, customer support response), and enhancing system functionalities, with proven ability to tailor solutions for specific contexts (including Vietnamese language).
- **Lead Technical Development Initiatives:** Utilize proven experience as a Team Lead to guide backend and AI development efforts, ensuring efficient project execution, high-quality code delivery, and successful implementation of solutions that directly address business needs and improve user experiences.

REFERENCES

Assoc. Prof. Van-Sang Pham, Vice-principal and Associate Professor at School of Mechanical Engineering, HUST *Ph.D. of Computational Engineering*

(+84) 966 633 683 • sang.phamvan@hust.edu.vn • Google scholar profile