

# Ngo Hong Thong

## Software Engineering

[✉ thonghongngo2004@gmail.com](mailto:thonghongngo2004@gmail.com) [📞 0345223056](tel:0345223056) [🌐 Portfolio](#)  
[LinkedIn](#) [GitHub](#)

### About Me

- Looking for a data internship to apply my skills in Software engineering. Highly self-motivated and adept at self-learning, aiming to contribute and develop in a dynamic setting.

### Education

**Industrial University of Ho Chi Minh City ( IUH )** 2022 – Now

**Major:** Data Science - 3.36/4.0

**Scholarship:** 100% (Year 2)

### Experience

**AI-Engineer intern** Dec 2024 – Now

*Bluebolt-Software/Back-end*

- Developing and maintaining a large-scale data mapping system for CRM platform.
- Optimizing data pipelines and ETL workflows to process and manage over 30TB of enterprise data, improving performance and scalability for internal analytics and reporting.
- Collaborating with the data engineering team to enhance data models and ensure consistent schema mapping across PostgreSQL, Kafka, and Redis environments.
- Collecting data from multiple sources, including web scraping and API integration.
- Designing and optimizing APIs to improve website functionality, enhance data retrieval speed, and boost backend performance.
- Integrating tools like Kafka to build a scalable data collection and processing system.

**Software Engineer Intern** Mar 2024 – Nov 2024

*IX-Health/Front-end*

- Developing and optimizing the user interface for a fitness studio application and landing page
- Collaborating on integrating AI models to enhance personalized user experiences.
- Contributing to the overall performance optimization and user experience, making the product more engaging and effective for end-users.
- Focused on building user-friendly features and ensuring compatibility across different platforms and devices.

### Projects

#### Student Dormitory Management System

[github](#)

- Developed a comprehensive student dormitory management system with features including student, house, and room management; duty scheduling (kitchen, reading, cleaning); request handling; blog/announcement posting; and registration forms.
- Designed RESTful APIs using Node.js (Express) and MongoDB, with JWT authentication and role-based access control (Admin, Head, Deputy, Member).
- Built a modern frontend with React and Material UI, supporting dashboards, search/filter, Excel import/export, and image uploads.
- Integrated Docker for containerization, Swagger for API documentation, and CI/CD with Docker Compose.
- Tech stack:** Node.js, Express, MongoDB, React, Material UI, Docker, Swagger.

## Chatbot-Finacial-Langgraph

[Link ↗](#)

- The core architecture using LangGraph to orchestrate a multi-step reasoning workflow.
- The hybrid RAG (Retrieval-Augmented Generation) system that combines: - FAISS vector store retrieval - SQL database integration - Web search capabilities.
- The intelligent decision-making process that determines the best information source
- Role: AI Engineer
- **Tech stack:** LangGraph, OpenAI, Google Gemini, FAISS, SentenceTransformer, PostgreSQL, Pydantic, Tavily Search API, Docker

## Movie Management Web Application

[github ↗](#)

- Developed a full-stack movie management web application supporting user authentication, movie CRUD operations, and search functionality.
- Designed RESTful APIs using Django REST Framework and PostgreSQL, with token-based authentication and role-based access (Admin, Staff, User).
- Built a modern frontend with React and Tailwind CSS, featuring dashboards, search/filter, and responsive UI.
- Integrated Docker for containerization and Nginx for static file serving; provided scripts for easy deployment.
- **Tech stack:** Django, Django REST Framework, PostgreSQL, React, Tailwind CSS, Docker, Nginx.

## WEB IUH lab

[Link ↗](#)

- Created a web application for student clubs, events, and articles management with user authentication, event scheduling, and content management to streamline registration and improve communication.
- Team size: 3
- Role: Back-end, Consultant Front-end
- **Tech stack:** Django, React, PostgreSQL, Restful API, Axios, Sass, Bootstrap

## Technologies

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**Frameworks/Libraries:** Django, FastAPI, Express, NodeJs, ReactJs, Selenium, BeautifulSoup

**Technologies:** TensorFlowJs, Firebase, Cloudflare, Socket, Redux, Axios, Tailwinds, Bootstrap, Sass

**System:** Docker, Airflow, Kafka

**Database:** PostgreSQL, MySQL, MongoDB, SQLite

## Publications

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**Building curriculum management software for Industrial University of Ho Chi Minh city**

YSC-2024

**Xay dung cac thuat toan toi uu dua vao quan the cho bai toan phan cong lich giang day**

SRW-2024