Nguyen Tuong Bach Hy

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Education

2019 – 2022	🔖 Math Specialized Class - Bac Lieu High School for the Gifted
2022 – *now*	🔖 AI major - Information Technology Faculty - Ho Chi Minh City University of Science

Skills

Concepts	🔖 Design pattern, OOP (SOLID), database design, api design
Coding	🔖 TypeScript, Python, Java.
Framework	🔖 Node.js, FastAPI, Flask, Spring Boot, NextJS.
Databases	🔖 SQL, noSQL (Redis, mongoDB), ACID pattern.
AI/ML	🔖 Model training, TensorFlow, PyTorch, Hugging Face, scikit-learn, LLMs.
DevOps	🔖 Docker, CI/CD, Git, GitHub Actions, Jest, pytest.

Miscellaneous Experience

Certification

2021	🔖 **Consolation Prize in the VMO (grade 11)**
2023	🔖 **JLPT N3**

Projects

Team Projects

① N.T.B.Hy and Team,
Vimarket: E-commerce platform with ui-controlling intelligent chatbot,
Team size: 4 members,
Description: A comprehensive e-commerce platform where an AI-powered chatbot interprets user intent and automatically generates appropriate UI actions.
Contribution Lead developer responsible for designing the RAG pipeline, implementing the streaming chat functionality, and developing core microservices (cart, order, product, recommendation system). Engineered the database abstraction layer and event-driven architecture using Kafka.
Key Features:

- Real-time UI automation through conversational AI.
- Complete e-commerce service ecosystem with microservices architechture.

, 2025.

② N.T.B.Hy and Team,
Visionwalk: Mobile ai app for the visually impaired,
Team size: 4 members,

Description: A mobile application providing safety and independence for the visually impaired with real-time alerts and text-to-speech technology.
Contribution: Full-stack developer responsible for backend implementation with FastAPI and designed/implemented database architecture using MySQL and SQLite.
Key Features:

- Real-time object detection and recognition.
- Firebase Realtime Database for locating acquaintances.
- Traffic sign recognition with text-to-speech alerts.

, 2024. 🔗 URL: `https://github.com/PrORain-HCMUS/VisionWalk`.

3 N.T.B.Hy and Team, **Remote pc by email**,
Team size: 3 members,
Description: An application/website that allows users to control their PC by sending commands via email.
Contribution: Responsible for backend development with Spring Boot and designed/implemented the MySQL database schema.
Key Features:

- Email command processing for remote PC control.
- Secure authentication.
- Web interface for monitoring.

, 2022. 🔗 URL: `https://github.com/nguyentuongbachhy/RemotePCbyEmailClient%20+%20https://github.com/nguyentuongbachhy/RemotePCbyEmailServer`.