Hoang Minh Nguyen

CONTACT INFORMATION

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EDUCATION

Korea Advanced Institute of Science & Technology (KAIST)
M.S. in Business and Technology Management
Expected Aug 2027

- Advisor: [Prof. Chul Ho Lee](#)
- Research Interest: Management Information System

Ho Chi Minh City University of Technology (HCMUT)
B.E. in Computer Science
Aug 2024

- Graduation Thesis: 9.1/10

WORK EXPERIENCE

DCSELab
Research Assistant
June 2024 - Sept 2025

- Mentor: Prof. Tan Tien Nguyen
- Main research topic: Machine learning for industrial systems
- Project: "Network Identification for Nonlinear Autoregressive Exogenous Model"
  - Developed a real-time EnBiLSTM framework for DDAPP system identification for industrial deployment (IEEE Access, 2025).
- Project: "Ventilation machine automatic control"
  - Train a model using reinforcement learning to find optimal control input to control ventilator pressure, enabling real-time personalized adaptation within patient comfort constraints.

Next Robotics
Research Internship
June 2023 - May 2024

- Mentor: Prof. Le Hong Trang
- Main research topic: Object Detection, Computer Vision
- Project: "Self-supervised learning models for defect inspection"
  - An industrial surface defect inspection, enabling real-time detection and classification of fabric anomalies to enhance quality control.
  - Proposed a new model from PatchCore and Dino in order to get the anomaly mask of the defections and SimpleNet for defect inspections.
- Project: "Face Recognition"
  - A software for checking attendance using face recognition with cameras.

PUBLICATIONS

C. T. Truong, T. D. Phan, **M. H. Nguyen**, V. T. Duong, H. H. Nguyen and T. T. Nguyen, "Ensemble Bidirectional Long Short-Term Memory Network Identification for Nonlinear Autoregressive Exogenous Model: Application to Dual Double-Acting Piston Pump," in *IEEE Access*, vol. 13, pp. 174445-174461, 2025. *[doi: 10.1109/ACCESS.2025.3612891.](#)*

PROJECTS **Social Simulation**
- Domain: NLP, ML, Computational Social Science
- Description: Using SFT and in-context learning to improve the accuracy of LLM in simulating survey response distributions.

Inventory Tracking
- Domain: Computer Vision
- Description: An outsource project about using computer vision to detect items real-time to manage stock left in storage and update to the database.

Stock Market Analysis
- Domain: Time Series Forecasting
- Description: Applied stacked LSTM and GRU LSTM for Deep Learning method and Random Forest, SVR for Machine Learning method in order to predict the stock price in US, Vietnam stock market and crypto market.

SKILLS Programming: Python, SQL
ML: LLM Fine-tuning (DPO/PPO/LoRA), RAG, vLLM, sglang, Computer Vision.
Databases: PostgreSQL, Schema Design.
MLOps: Docker, Linux

HONORS AND **KAIST Global Presidential Scholarship (KGPS)**
AWARDS