

MINH TRIEU TRUONG

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OBJECTIVE

As an AI engineer, I have built a strong foundation in applying Machine Learning and Deep Learning to solve real-world problems. My experience includes developing solutions in Computer Vision and Natural Language Processing. I am now looking to transition into a Master program to conduct focused research in Computer Vision, Image Processing, or Vision-based Robotics. My goal is to leverage my practical skills to contribute to cutting-edge research, particularly in Image Processing, Image/ Video Understanding and Model-based Deep Learning for Image Processing.

EDUCATION - LANGUAGES

Ho Chi Minh City University of Technology and Education

2021 – July 2025

High-Quality Program

- Major: Information Technology – Artificial Intelligence (AI) Specialization
- GPA: 3.41/4.00 – AI Specialization GPA: 3.79/4.00
- Relevant Coursework: Artificial Intelligence - A+ (4.0/4.0), Deep Learning - A+ (4.0/4.0), Digital Image Processing - A+ (4.0/4.0), Big Data Processing - A+ (4.0/4.0), Mathematics for Artificial Intelligence - A (3.7/4.0), Reinforcement Learning - B+ (3.5/4.0), Project on AI - A+ (4.0/4.0)
- Awards: Best Thesis Award, 9.6/10.0 – 4.0/4.0, High-Quality Program (June 2025)

RESEARCH EXPERIENCE

Research Assistant

February 2023 – Present

Artificial Intelligence & Intelligent Systems Laboratory – AIS Lab, HCMUTE

- Instructor: Assoc. Prof. Dr. [Van-Dung Hoang](#) – Vice Dean of FIT, HCMUTE
- Actively participated in university lab research since my second year of university.
 - Gained a foundational understanding of Deep Learning, with a focus on Image and Language Processing.
 - Participated in weekly seminars led by the laboratory's supervisor.
 - Read, implement, and present research papers on advanced Machine Learning architectures.
 - Led and conducted student scientific research projects funded by the university's science and technology research fund.
 - Conducted research and experiments, and wrote papers and scientific reports presenting the results.
- Main research areas: Machine Learning, Deep Learning, Image Processing and Natural Language Processing.
- Main research tasks:
 - CNN-based algorithms for Image Classification/Segmentation tasks, and RNN/LSTM-based algorithms for Sequential data.
 - Surveillance Camera Image Processing: Video Classification, Action Recognition
 - Medical Image Processing: Classification, Detection, and Segmentation problems in Medical Images
 - Natural Language Processing: Conversational AI, Machine Translation and Multimodal NLP
- Publications:
 - Two conference papers accepted and presented. **One journal paper accepted** after peer review and revision.
- Awards: **Excellent Student Scientific Research Project**, HCMUTE in 2024.

Graduation Thesis

January 2025 – June 2025

- Thesis: *“Integration of Large Language Models with Machine Translation for Medical Question Answering Systems”*
- Research, design, and build a Retrieval and Question-Answering system for Medical Information and Data.
- Fine-tune Neural Network-based Machine Translation models to support the Vietnamese language.
- Integrate with Visual Language Models (VLMs) for Medical Visual Question Answering (Med VQA) tasks.
- Final assessment: **Achieved a score of 9.6/10 - the highest in the Information Technology major, High-Quality Program, K2021.**
- The project is currently ongoing as a research project, with the intended outcomes being a research paper and an open-source application.

Specialized Project on Artificial Intelligence (pre-thesis) [[project page](#)]

August 2024 – January 2025

- Research: *“Research image segmentation techniques and their application to medical image segmentation problems”*
- Researched and analyzed Image Segmentation techniques, focusing on their application in Medical Imaging.
- Conducted experiments on three key Medical Imaging datasets: blood cells, endoscopic images, and dermatological images.
- Evaluated and compared various Image Segmentation methods to optimize performance for Medical Imaging.
- Research on techniques: Dilated Convolution, Transposed Convolution, Deconvolutional Neural Network, Atrous Convolution, Conditional Random Fields (CRF), Spatial Pyramid Pooling, Atrous Spatial Pyramid Pooling.
- Experimentation and evaluation of the model’s network architectures: FCN, UNET, UNET++, Mask R-CNN (This model was only surveyed, not implemented experimentally due to resource limitations.) and DeepLabv3+.
- Final assessment: **Achieved a score of 10/10 - A+ (4.0/4.0), [project page](#).**

Student Scientific Research Project Leader

December 2023 – November 2024

Sponsored by the Scientific Research Fund, Ho Chi Minh City University of Technology and Education (HCMUTE)

Funded Research Project Code: SV2024-193

- Supervisor: Assoc. Prof. Dr. [Van-Dung Hoang](#) – Vice Dean of FIT, HCMUTE
- Project title: *“Build a Real-world Crime Detection Program in Surveillance Videos Based on Skeletons”*
- Responsible for leading a student research project funded by HCMUTE’s scientific research grant. Oversaw the full research lifecycle, from proposal development and methodology design to implementation, evaluation, and final defense.
- Research conducted at the Faculty of Information Technology, HCMUTE.
- Final defense and peer-review presentation: November 27, 2024.
- Final assessment: Rated **Excellent**. Honored with the **Best Student Research Project Award** of HCMUTE.

INDUSTRIAL EXPERIENCE

Data Scientist

August 2025 – Present

Data Team, FTEL Sandbox Department – FPT Telecom, FPT Corporation

- Work with experts and engineers to solve problems related to the corporation’s technology and infrastructure sectors.
- Research, read papers, implement models, improve and optimize, focusing on Natural Language Processing.
- Focus on architectures and Deep Learning models for log data (syslog).
- Implement Deep Learning architectures to analyze log semantics and focus on tasks such as incident prediction and abnormal log detection.
- Focus on Deep Learning network architectures based on Transformer and BERT, such as LogBERT.

PUBLICATIONS

SCIE Journal Article

Engineering Applications of Artificial Intelligence Journal (EAAI) [[read PDF](#)]

Submitted: February 2025 – Revised: June 2025 – Accepted: August 2025 – Published: August 2025

- **Article.** Truong, Minh-Trieu, Hoang, Van-Dung. "[Skeleton-based Multi-person Action Recognition towards Real-world Violence Detection](#)". In Volume 161, Part A (SCIE Q1, Impact Factor 8.0, H-Index 149)

International Conference Article

The 10th EAI International Conference on Smart Objects and Technologies for Social Good

Submitted: October 2024 – Accepted: December 2024 – Published: August 2025

- **Article.** Truong, Minh-Trieu, Hoang, Van-Dung, Le, Cong-Hieu. "[Automatic Recognition And Scoring System In Military Training Applies Modern Deep Learning Techniques](#)". In Smart Objects and Technologies for Social Good. GOODTECHS 2024. *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, vol 648. Springer, Cham.

International Conference Article

The 7th International Conference on Green Technology and Sustainable Development

Submitted: April 2024 – Accepted: June 2024 – Published: December 2024

- **Article.** Truong, Minh-Trieu, Hoang, Van-Dung, Le, Thi-Minh-Chau. "[Skeleton-Based Posture Estimation for Human Action Recognition Using Deep Learning](#)". In *Computational Intelligence Methods for Green Technology and Sustainable Development*, pp. 85–98, Springer Nature Switzerland, 2024. ISBN: 978-3-031-76197-3

TECHNICAL SKILLS

Specializations	Computer Vision, Image Processing, NLP
Algorithms	k-NN, Linear/ Logistic Regression, Decision Tree, Random Forest, Naive Bayes
Models	MLP, NN, CNN, RNN, LSTM, Transformer, v.v
Architectures	VGGNet, ResNet, UNET, DeepLabv3+, Faster R-CNN, Mask R-CNN, BERT
Programming Languages	Python, Golang (Entry Level), SQL, Apache Hive
Frameworks & Tools	PyTorch, Pandas, NumPy, OpenCV, Git
Soft Skills	Problem-Solving, Solution-Oriented Attitude, Communication, Presentation

CONFERENCE & WORKSHOP PRESENTATIONS

The RAVTE International Student Workshop: Exploring AI Technologies and Innovations

Nov 2024 | Online participation | Full oral presentation | Thailand, Hybrid Workshop

- **Presentation Title:** "Modern Approaches to Action Recognition for Abnormal Behavior Detection in Intelligent Surveillance Systems"

The 7th International Conference on Green Technology and Sustainable Development

Jul 2024 | In-person participation | Full oral presentation | Ho Chi Minh City, Vietnam

- **Presentation Title:** "Skeleton-Based Posture Estimation for Human Action Recognition Using Deep Learning"

The 10th EAI International Conference on Smart Objects and Technologies for Social Good

Dec 2024 | Online participation | Full oral presentation | Can Tho City, Vietnam

- **Presentation Title:** "Automatic Recognition and Scoring System in Military Training Applies Modern Deep Learning Techniques"

The Student Scientific Research Conference, Faculty of Information Technology, HCMUTE

Aug 2024 | In-person participation | Full oral presentation | Ho Chi Minh City, Vietnam

- **Presentation Title:** "Machine Learning for Health Prediction: Prediction of Cardiovascular Disease"

SCIENTIFIC AWARDS & CERTIFICATES

- Team leader of the highest-scoring student scientific research project among all student scientific research projects in the Faculty of Information Technology, HCMUTE in 2024
- Excellent Student Scientific Research Project Award, HCMUTE in 2024.
- Outstanding Student in Scientific Research, HCMUTE in 2024, [pdf](#).
- Certificate of presentation, The 7th International Conference on Green Technology and Sustainable Development, [pdf](#).
- Certificate of Participation, Euréka Scientific Research Student Award (Semifinalist in 2023 and 2024), [pdf](#).
- Certificate of presentation, Student Scientific Research Conference, HCMUTE in 2024.
- Certificate of presentation, The RAVTE International Student Workshop, [pdf](#).

EXTRACURRICULAR ACTIVITIES

- Spearheaded the organization of approximately 30 events and competitions, demonstrating strong project management and coordination skills.
- Organized and served as a core member in numerous programs, events, and competitions in academic, volunteer, and cultural domains at both the faculty and university levels.
- Honored with the award for extensive contributions to the HCMUTE Student Union.

REFERENCES

Assoc. Prof. Dr. [Van-Dung Hoang](#)

- Vice Dean of FIT - Faculty of Information Technology
- Ho Chi Minh City University of Technology and Education
- Email: dunghv@hcmute.edu.vn