ANH-DUY LE

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RESEARCH INTEREST

I am an AI researcher and engineer working at the intersection of generative modeling, multimodal AI, and controllable visual generation. My research began with visual text intelligence—OCR, handwriting recognition, and mathematical expression recognition—and has evolved toward generative modeling, with recent work on one-shot handwriting generation using diffusion models. Alongside research, I have spent several years building production AI systems at Viettel AI, spanning OCR, eKYC, document processing, and generative data synthesis, which has shaped a research style focused on models that are both novel and practically robust. I am now interested in compositional and controllable generative AI: how generative models can compose multiple constraints at inference time, and how style, content, and structure can be represented modularly through diffusion models, energy-based models, and multimodal representations. My long-term goal is to contribute to generative AI systems that are high-quality, controllable, interpretable, and useful across real-world domains.

EDUCATION

VNU-HCM University of Technology *August 2021 - November 2023*
Master of Engineering in Computer Science
Department of Computer Science and Engineering
Cumulative GPA: 8.29/10.00
Thesis: A system for extracting mathematical expressions from document images
Thesis Grade: 9.94/10.00

VNU-HCM University of Technology *August 2017 - November 2021*
Engineer of Computer Science
Department of Computer Science and Engineering
Cumulative GPA: 8.67/10.00
Thesis: A study on a diagnosis system for Eye diseases
Thesis Grade: 9.62/10.00

PUBLICATIONS

1. **CONSTANT: Towards High-Quality One-Shot Handwriting Generation with Patch Contrastive Enhancement and Style-Aware Quantization** *Oral, Award Finalist, WACV 2026*
   ***Anh-Duy Le**, Van-Linh Pham, Thanh-Nam Vo, Xuan Toan Mai, Tuan-Anh Tran*

2. **Formerge: Recover Spanning Cells in Complex Table Structure Using Transformer Network** Poster, ICDAR 2023
   Nam Quan Nguyen, **Anh-Duy Le**, Anh Khoa Lu, Xuan Toan Mai, Tuan-Anh Tran

3. **A Hybrid Vision Transformer Approach for Mathematical Expression Recognition** *Oral, DICTA 2022*
   ***Anh-Duy Le**, Van-Linh Pham, Vinh-Loi Ly, Nam Quan Nguyen, Huu Thang Nguyen, Tuan-Anh Tran*

WORK EXPERIENCE

- **Drimco AI** Remote from Ho Chi Minh City, Vietnam
  AI Engineer *July 2025 - Present*

  - Build document AI workflows for technical document processing, including core document structure and layout analysis models.
  - Language/Framework: **Python, PyTorch, FastAPI, MLflow, Docker**
- **Viettel AI** Ho Chi Minh City, Vietnam
  Senior AI Engineer *April 2024 - Present*

  - Lead OCR projects for major insurance and banking clients, designing and developing end-to-end systems with multiple models while ensuring performance, accuracy, and delivery from planning to deployment.
  - Core R&D member of the team, researching new technologies in document understanding and generative modeling, applying findings to improve company products, and publishing research papers at top-tier conferences (WACV, ICDAR).
  - Mentor junior engineers on research methodology, experiment design, and engineering best practices.
  - Drive technical decisions on model architecture and system design, collaborating with product and business teams to translate requirements into scalable AI solutions.
  - Language/Framework: **Python, PyTorch, FastAPI, Wandb, LaTeX, Docker, CI/CD**

  Junior AI Engineer *October 2021 - March 2024*

  - Participate in developing OCR/EKYC systems to automate the process of extracting information from various types of documents for clients, including government and businesses.
  - Primarily responsible for researching and applying existing SOTA architectures to develop comprehensive document understanding technology, including text recognition, information extraction, and layout analysis for most types of documents.
  - Language/Framework: **Python, PyTorch, Docker**
- **ARI Technology Joint Stock Company** Ho Chi Minh City, Vietnam
  Junior AI Engineer *August 2020 - March 2021*
  Building AI system for customers based on research papers, including face recognition, object detection, and AI chatbot.
  Language/Framework: **Python, PyTorch, RaSa, Flask**
- **BK Artificial Intelligence Club** Ho Chi Minh City, Vietnam
  Member of Academy Team *November 2019 - November 2020*
  Organizing seminars and workshops for some topics in Machine Learning, Deep Learning.
- **Faculty of Computer Science & Engineering, HCMUT** Ho Chi Minh City, Vietnam
  Teacher assistant *August 2019 - December 2019*
  Assisted the lecturer in the Data Structures and Algorithms course by preparing exam questions, grading assignments, and providing tutoring support to undergraduate students.

LICENSES & CERTIFICATIONS

- NVIDIA-Certified Professional: Accelerated Data Science [CERTIFICATE]
- Google Cloud Professional Machine Learning Engineer Certification [CERTIFICATE]
- VietAI Advanced Class in Computer Vision [CERTIFICATE]

HONORS AND AWARDS

- Recognition of individuals for excellent achievements in Science and Technology activities at Viettel AI *2025*
- Runner up at ICDAR Competition on Artistic Text Recognition Competition *2024*
- Runner up at Automatic Speech Recognition tasks-Viettel Hearted AI Challenges *2023*
- Recognition of individuals for excellent achievements in Science and Technology activities at Viettel AI *2022*
- Top 9/40 AICovidVN 115M Challenge: Covid Cough Detection Challenge (Final Round) *2021*
- Student of Five Merits Scholarship *2019*
- Academic Encouragement Scholarship *(2018-2019)*

SKILLS

- Programming Language: Python, C/C++, Java
- Technologies: PyTorch, Tensorflow, Google Cloud Platform, OpenCV, Numpy, Scikit-learn, Pandas, Matplotlib, PyQT5, Wandb, FastAPI, Git, Draw.io, Docker, LaTeX
- Platform: Linux, Windows
- Language: English

ACTIVITIES

- Ho Chi Minh City "Green Summer" campaign *July 2018 - August 2018*