

HUYNH TRONG NHAN

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EDUCATION

Bachelor of Computer Science
University Transport and Community

2018 - 2023
Ho Chi Minh City, Vietnam

- Activities and societies: Establish AI@Lab at the University
- Take part in Research Science
- First prize in Competition Research Science

Master Candidate of Artificial Intelligence and Computer Science
University of Information Technology, VNU-HCM

2023 - 2025
Ho Chi Minh City, Vietnam

Give the skills and knowledge they need to be successful in the AI industry. Students will learn from experienced faculty and researchers and will have the opportunity to work on real-world AI projects. The program also strongly emphasizes ethics, ensuring students know AI technologies' potential benefits and risks.

Program highlights:

- Comprehensive coverage of AI fundamentals, including machine learning, deep learning, natural language processing, and computer vision.
- Specialization options in healthcare AI, finance AI, and transportation AI.
- Hands-on experience with developing and deploying AI solutions.
- Strong emphasis on ethics and responsible AI development.

EXPERIENCE

AI Engineer
BnK Solution

Jan 2024 - Current
Ho Chi Minh City, Vietnam

- Build Multi-modal with LLM For Recommendation System
- Research Talking Head Generation in Support Multi-Lingual
- Optimizer Modeling and time execution of inference
- Build OCR for CAD Drawing System from end to end

AI Engineer
VTC Academy

May 2023 - Dec 2023
Ho Chi Minh City, Vietnam

- Develop an LLM-powered app with a QnA Chatbot for company services.
- Develop a user-friendly photo generation app using Stable Diffusion's checkpoints.
- Develop app for generating scripted video from input photo.
- Develop an app for Image Animation problems.
- Research on Generative AI models
- Develop APIs for AI models to retrieve data from presentation files.
- Research on NLP problems to deploy in products
- Deploy research into products

AI Engineer Trainee

VinBigData

Jul 2022 - May 2023

Hanoi City, Vietnam

- The Vingroup AI Engineer Training Program is a comprehensive program that covers a wide range of topics related to artificial intelligence and data science.
- The program is designed to give participants the knowledge and skills they need to become successful AI engineers.

AI Engineer

Ezin Insurtech Company J.S.C

Jan 2020 – Feb 2022

Ho Chi Minh City, Vietnam

- Manage the company's source code organization
- Develop DL/ML models for problems
- Propose and provide solutions to problems
- Optimize DL/ML models for server-deployed problems
- Organize and divide work among team members
- Develop research into products and write APIs

SKILLS

Programming Languages	Python, Java, C/C++
Back End Development	FastAPI, MongoDB, AWS, Google Cloud
DevOps	Docker, Portainer
Machine Learning	Langchain, PyTorch, TensorFlow/Keras, Gradio

PROJECTS

A NEW APPROACH TO TTS THAT CAN GENERATE MORE NATURAL AND DIVERSE SPEECH

Aug 2023 – Jan 2024

- **Name of Customer:** ...
- **Description:** a style-based generative model for parallel TTS that can synthesize diverse speech with natural prosody
- **Team Size:** 2
- **Technologies:** Python, Denoiser, TTS, C, C++, Whisper, CUDA Extension
- **Position:** Researcher NLP
- **Main responsibilities:**
 - Build Data pipeline preprocessing
 - Train Multilingual model
 - Build API for Research
 -

AUTOMATIC OCR and EXTRACT INFORMATION CAD

Jan 2023 – present

- **Name of Customer:** ...
- **Description:** Research, analyze, and apply deep learning techniques to extract features from technical drawings. Extract information from CAD files
- **Team Size:**
- **Technologies:** YoloV10, PaddleOCR, Parseq
- **Position:** LLM Researcher Freelancer
- **Main responsibilities:**
 - Build an automatic answering system based on CogVLM models
 - Research and finetune models on private data sets

- Write API for the program

CAR DAMAGE INSPECTION

Jun 2021 - Oct 2021

- **Name of Customer:** ...
- **Description:** By applying deep learning techniques, our system can detect the loss on the vehicle from which it can
- **Team Size:** 5
- **Technologies:** Python, Docker, Linux, Tensorflow, Pytorch, YOLO
- **Position:** Leader of Team
- **Main responsibilities:**
 - Team Leader AI Engineer
 - Build the core system of the company
 - Take part in Outsource project

SCIENTIFIC RESEARCH: ANALYSIS, DETECTION, AND DIAGNOSIS IN THE LUNGS THROUGH X-RAY MEDICAL PHOTOS

Sep 2021 – May 2022

- **Name of Customer:** ...
- **Description:** Proposing a method of applying Densenet architecture into the Object detect model linked to the Aut
- **Team Size:** 5
- **Technologies:** Python, Linux, TensorflowJS, Colab, HTML, CSS, Javascript, Tensorflow
- **Position:** Researcher, Developer
- **Main responsibilities:**
 - Research and deploy architecture
 - Collect and propose data processing methods
 - Compare and control the models of models
 - Build Demo Product

CONFERENCE S.O.M.E.T 2022: SEGMENTATION ON CHEST CT IMAGING IN COVID-19 BASED ON THE IMPROVEMENT ATTENTION U-NET MODEL,

Dec 2021 – Oct 2022

- **Name of Customer:** None
- **Description:** 5
- **Team Size:** With Transformer architecture, it is applied to research and propose a method of segmenting COVID-19
- **Technologies:** Python, Linux, Tensorflow, Colab
- **Position:** Researcher, Developer, Contributor
- **Main responsibilities:**
 - Research and deploy architectures
 - Collect and propose data processing methods
 - Compare and control the models of models

COURSES

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- | | |
|--|-------------------|
| • Building High-Level AI Applications with Language Models, <i>Mindmaid</i> | 03/2024 - 04/2024 |
| • System Design, <i>Engineer Pro</i> | 03/2024 - 06/2024 |
| • Backend Engineering with Golang, <i>Engineer Pro</i> | 02/2024 - 05/2024 |
| • Machine Learning Engineering, <i>robusto.ai</i> | 01/2024 - 06/2024 |
| • Data Structures and Algorithms, <i>BigO Coding</i> | 10/2023 - 11/2024 |

- **Golang for Scalable Backend**, 200Lab
- **Artificial Intelligence**, AI VietNam

01/2023 - 04/2023
05/2022 - 05/2023

AWARD

First Prizes Research Science

Jun 2022

Issued by University Transport and Communication

Associated with University of Transport and Communication

- My team proposed a new method that increases all metrics of the Model Which was present in the article by Standford.
- We built a website to introduce a feature and some special model

Best Paper Award at S.O.M.E.T Conference 2022

Oct 2022

Issued by IOS PRESS

Associated with Vietnam National University, HCMC

- Proceedings of 21st International Conference on Intelligent Software Methodologies, Tools, and Techniques (SOMET 2022), pp. 596 – 606, Kitakyushu, Japan, Sept. 2022. Best Paper Award.
- This paper proposes a new deep-learning model to detect COVID-19 lesions in chest CT images. This method is based on the Attention U-net which uses the layer of Atrous Spatial Pyramid Pooling (ASPP) to capture the feature on various scales. It also contains an attention gate. The attention gate provides the ability to suppress irrelevant regions and focus on the useful feature in an input image. The experimental results show that this method can achieve 99.61% accuracy and 80.43% precision. They are more effective than the baseline method on Chest CT images.

Top 10 Product In AI Award 2022

Issued by VNExpress

Oct 2022

Associated with Ezin Insurtech

- We propose a new method which gets 97,69% Accuracy to get a Damage on Car. With this solution, we want to introduce a new Tech with helps customers easier than in the Insurance major.
- By the way, we provide a new product which can detect any car damage. More than it can be calculate areas of damage and the fee you must pay for it

CERTIFICATES

- **Machine Learning Specialization**, *DeepLearning.AI* Apr 2023
- **IBM AI Engineering Specialization**, *IBM* Mar 2023
- **IBM Data Science Specialization**, *IBM* Feb 2023
- **IBM Data Analyst Specialization**, *IBM* Jan 2023

PUBLICATIONS

VehiDE Dataset: New dataset for Automatic vehicle damage detection in Car insurance 18 Sep 2023
The 15th IEEE International Conference on Knowledge and Systems Engineering (KSE-2023)

In the auto insurance domain, there's considerable interest in automatic car damage identification. However, developing a viable model is challenging due to the lack of accessible high-quality datasets. To address this, the Vehicle Damage Detection (VehiDE) dataset has been introduced—a public, large-scale dataset specifically for segmenting and detecting visual automotive damage. This dataset consists of 13,945 high-resolution photos of damaged cars with over 32,000 annotations for each damage category. The dataset undergoes detailed statistical analysis, and the collection, selection, and annotation procedures are outlined. To underscore expertise in automotive damage identification, extensive experiments are conducted on the VehiDE dataset using advanced deep learning approaches across various tasks, accompanied by thorough analysis.

This paper proposes a new deep-learning model to detect COVID-19 lesions in chest CT images. This method is based on the Attention U-net which uses the layer of Atrous Spatial Pyramid Pooling (ASPP) to capture the feature on various scales. It also contains an attention gate. The attention gate provides the ability to suppress irrelevant regions and focus on the useful feature in an input image. The experimental results show that this method can achieve 99.61% accuracy and 80.43% precision. They are more effective than the baseline method on Chest CT images.