

Truong Duc Tai  
AI/Algorithm Engineer

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Education

Industrial University of Ho Chi Minh City, Vietnam	09/2021 – Present
Bachelor's Degree in <b>Data Science</b>	GPA: 3.48/4.0
	TOEIC: 715

Projects

<b>Fine-tuning Vision-Language Model (VLM)</b>	01/2025 – 05/2025
NLP Final Project, Scored 8/10	<a href="#">[Kaggle]</a>
<ul style="list-style-type: none"><li>Fine-tuned Vintern-1B-v2 on Viet-chart-VQA dataset using LoRA with PyTorch, peft, and datasets; processed 110k chart images and text queries.</li><li>Preprocessed image-text pairs with PIL, tokenized text, and optimized training with DeepSpeed; saved periodic checkpoints and achieved 0.91 BERTScore F1 on test set, improving baseline by 5.8%.</li></ul>	
<b>Ensemble LLM Code Solver</b>	03/2025 – 04/2025
Kaggle Competition, Ranked 21/149	<a href="#">[Github]</a>
<ul style="list-style-type: none"><li>Standardized prompts, queried DeepSeek-V3, Gemini 2.0 Flash, GPT-4o, Llama 3 via API, validated outputs (A, B, C, D), used majority/confidence-weighted voting.</li><li>Achieved DeepSeek-V3 75%, Gemini 2.0 Flash 72%, GPT-4o 70%, Llama 3 62%, ensemble 71%.</li></ul>	
<b>Mammography Breast Cancer Detection</b>	01/2025 – 03/2025
Kaggle Project	<a href="#">[Github]</a>
<ul style="list-style-type: none"><li>Converted DICOM to PNG, filtered view/laterality, augmented data (flips, rotations, brightness), fine-tuned EfficientNet-B0, Resnet50, HR-Net, Swin-Transformer.</li></ul>	
<b>Open Set Recognition</b>	03/2024 – 09/2024
Young Scientists Conference 2024	<a href="#">[Kaggle]</a>
<ul style="list-style-type: none"><li>Utilized beta-VAE with Wide ResNet for latent space encoding; applied Extreme Value Theory for open set detection via probability thresholds.</li><li>Achieved 99.7% closed set accuracy, 94.0% open set accuracy.</li></ul>	

Skills

**Machine Learning/AI Frameworks:** TensorFlow, PyTorch, Transformers, Keras, Scikit-learn, OpenCV, Peft  
**Data Science:** Pandas, NumPy, Matplotlib, Seaborn, Plotly  
**Version Control:** Git, GitHub  
**Databases:** MySQL, MongoDB, SparkSQL  
**APIs & Web Services:** Django Rest Framework, FastAPI  
**Crawl Data:** Selenium, BeautifulSoup, Requests  
**Laboratories:** Programming Lab, Data Innovation Lab

Awards

<b>LOTTE Scholarship</b>	2024
Academic excellence award by LOTTE Foundation.	<a href="#">Scholarship</a>
<b>Top 500 – Meta Hacker Cup</b>	2024
Ranked among top 22492 participants.	<a href="#">Certificate</a>
<b>Top 12 Vietnam – ICPC Asia Hanoi Regional Contest</b>	2024
Ranked among top 124 teams in Vietnam.	<a href="#">Certificate</a>
<b>Third Prize – ICPC Southern Vietnam Regional Contest</b>	2023
Secured third place in regional programming contest.	<a href="#">Certificate</a>
<b>Second Prize – Vietnam National Collegiate Programming Contest</b>	2022
National Round – Specialized Track.	<a href="#">Certificate</a>
<b>Consolation Prize – Vietnam National Collegiate Programming Contest</b>	2021
National Round – Non-specialized Track.	<a href="#">Certificate</a>
<b>Top 5% – Scholarship for Encouraging Study</b>	2 semesters
Awarded for outstanding academic performance.	