Mr. Thanh Trung NGUYEN

Da Nang, Viet Nam | trung9204@gmail.com | (+84) 868880471 | 20/02/2004

"I am seeking an intern position in the **Artificial Intelligent (AI)** field. As an **Information Technology** student with a strong background in **AI** and **Data Science**, combined with excellent **teamwork**, **sociability**, and **adaptability**, I am eager to learn in a dynamic, professional environment and contribute to the growth of the company."

EDUCATION AND TRAINING

Bachelor of Information Technology **2022 - Present**

Da Nang University of Technology and Education Da Nang, Vietnam

- **GPA:** 3.59/4.0.
- **Highlight courses:** Artificial intelligence, Data Science, Applied mathematics in Information Technology, Probability and statistics, Algorithm analysis & design, Calculus, Linear algebra.

PERSONAL PROJECTS

Computer Vision Engineer **Jan. 2025 – Present**

Face Recognition for Classroom Monitoring – Project-Based Learning (PBL5) Da Nang, Viet Nam

- Developing a real-time face recognition system for classroom monitoring as part of the PBL5 course.
- Using YOLOv5 to detect faces in camera frames, then building a neural network to classify whether the detected face is real or fake.
- Extracting facial features with InceptionResNetV1 (FaceNet) and leveraging a vector database for efficient face comparison using k-d tree for nearest neighbor search with Euclidean and Cosine similarity as distance metrics.
- Fine-tuning InceptionResNetV1 on a Vietnamese facial dataset to improve recognition accuracy.
- Applying data augmentation, image normalization, and preprocessing techniques to enhance model robustness under different lighting conditions and angles.

GitHub Repository: Face-ID-Python

Natural Language Processing Engineer **Jan. 2025 – Feb. 2025**

Personal Project – English-to-Vietnamese Machine Translation Da Nang, Viet Nam

- Developed an English-to-Vietnamese machine translation model using a Transformer-based architecture in PyTorch.
- Implemented attention mechanisms, teacher forcing for efficient training, and auto-regressive decoding for output generation.
- Achieved a translation accuracy of ~90%, with errors due to dataset limitations and model size.

GitHub Repository: pytorch-english-vietnamese-translation

Computer Vision Engineer **Dec. 2024 – Jan. 2025**

Personal Project – Image Captioning Model Da Nang, Viet Nam

- Developed an image captioning model using PyTorch with an LSTM-based architecture.
- Extracted image features using InceptionV3, then processed tokenized captions with LSTM, merging textual and visual features before passing them through a feedforward layer with softmax for word prediction.
- Implemented an auto-regressive approach for both training and testing to generate sequential word predictions.
- Achieved a test accuracy of 34.56%, with limitations due to dataset size, variability, and multiple descriptions per image in the dataset.

GitHub Repository: image-captioning

Natural Language Processing Engineer **Feb. 2025 – Feb. 2025**

Personal Project – Sentence Completion using LSTM and Transformer Da Nang, Viet Nam

- Developed a sentence completion model using PyTorch, implementing both LSTM and Transformer encoder architectures.
- Generated training data by masking individual words in sentences and training the model to predict the missing word using a softmax layer.
- Compared model performance, with Transformer achieving slightly better accuracy than LSTM.
- Both models successfully learned grammatical structures, identifying missing subjects, verbs, and other key components, though some predictions lacked semantic clarity in certain cases.

GitHub Repository: text-missing-word-prediction

Computer Vision Engineer **Jan. 2025 – Feb. 2025**

YOLOv1 from Scratch – Academic Project (Artificial Intelligence Course) Da Nang, Viet Nam

- Implemented YOLOv1 (You Only Look Once) from scratch using PyTorch as part of an academic project.
- Built the full model architecture, including convolutional layers for feature extraction and fully connected layers for bounding box regression and class prediction.
- Designed and implemented a custom loss function to balance classification, localization, and confidence score predictions.
- Faced limitations due to YOLOv1's 7×7 grid constraint, which caused misdetections when multiple objects appeared in the same grid cell.

GitHub Repository: Yolo_Pytorch

SKILLS AND LANGUAGES

Technical skills:

- **Programming Language:** Python (Machine Learning & AI), JavaScript (Web Development), Java (OOP & Backend), C++.
- **Web Development:**
  - **Frontend:** HTML, CSS, JavaScript, React.js.
  - **Backend:** Flask, Node.js, Spring Boot, Servlet, PHP.
- **AI and Data Science:** PyTorch, TensorFlow, Keras, and scikit-learn.
- **Data Crawling and Analysis:** pandas, NumPy, Matplotlib, BeautifulSoup, Seaborn.
- **Databases:** MySQL, SQL Server, MongoDB, PostgreSQL.

Languages: English (Advanced – B2, proficient in communication and technical writing)

ACTIVATION AND PRIZES

Activation: 347 problems solved on the Le Quy Don Online Judge (LQDOJ) online judge.

Prizes:

- **3rd prize in the Central Highlands and Central Programming Contest.**
- **2nd prize in the City-level Youth Informatics Contest**.
- **2nd prize in the City-level Mathematics Olympiad**.
- **3rd prize in the City-level Youth Informatics Contest.**