DINH MINH TOAN

Master's student

WORK EXPERIENCE



Al Engineer
BAP Software
In charge of Al Application Development
October 2023 - Present

Projects:

- Key member of LLM chatbot for blockchain platform: Implemented RAG technique, fewshot prompting, and fine-tuning with LoRA
- Key member of Building Security System: Developed people tracking system and zeroshot cross-modal retrieval system



Research Assistant

Da Nang University of Science and Technology August 2023 - Present

 Researching machine learning applications for analyzing and monitoring chemical substances through near-infrared spectroscopy data and co-authoring papers with my professor



Al Intern in Japan TAS Design Group August 2023

Project:

 Developing a LLM chatbot assistant to support product managers in their daily tasks using RAG technique and ensemble learning with LLM

EDUCATION HISTORY



Bachelor of Computer Science

Da Nang University of Science and Technology Major: Artificial intelligence & Data science August 2019 - September 2023 (4 years)



CONTACT ME

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SKILLS

- Programming language: Python
- Deep learning frameworks: PyTorch, TensorFlow, Keras
- Computer vision: Pillow, OpenCV
- Natural Language Processing: VnCoreNLP, Underthesea
- Foundation models: Langchain, LlamaIndex, DSPy, Peft & Unsloth.
- Backend: Python with FastAPI.

COMPETITION

- 1st Prize, Competition to Optimize Power Use with AI -DEVDAY 2024 (1)
- Finalist, HCM Al Challenge 2023 (2)
- 2nd Prize, Competition to Optimize Power Use with AI -DEVDAY 2023 (3)
- Top 10, Vietnam Online Hackathon 2020 (4)

PROJECTS



Medical Image Semantic Segmentation

Personal project

May 2024 - July 2024

Technologies: SimpleITK, Nibabel, PyTorch

Contributions:

- Processed medical images including CT pelvic and dermatoscopic skin
- Trained and evaluated models for semantic segmentation



Power Generation & Use Forecasting

Team project for DevDay 2023 & 2024 April 2023 & May 2024

Technologies: PyTorch, Scikit-learn, Pandas, Matplotlib

Contributions:

- Led team management, research, solution development
- Conducted EDA and processing of time series data
- Trained, evaluated, and ensembled models



News Summarization Agent

Personal project April 2024

Technology: Langchain, OpenAl API & Underthesea

Contributions:

 Built an agent combining news scraping, preprocessing, and summarization modules



Video Text Retrieval System

Teamwork project in HCM AI Challenge 2023 August 2023 - October 2023

Technology: FAISS, Pytorch & FastAPI

Contributions:

- Led team management, research, solution development
- Developed a comprehensive system for video text retrieval, which is a combination of subtasks such as image-text retrieval, video & image understanding, object detection, OCR

PUBLICATION

Efficient Video Retrieval with Advanced Deep Learning Models SOICT 2023

Show publication

PROJECTS



Elementary Math Solving

Personal project

December 2023

Technology: Pytorch, Transformers & LoRA

Contributions:

- Conducted data processing & augmentation
- Conducted model training & evaluation



E2E Audio Podcast Summarization

Capstone project

April 2023 - July 2023

Technology: Transformers, Pytorch, VnCoreNLP, Scikit-learn, Pandas & Matplotlib

Contributions:

- Building E2E application leveraging SoTA Deep learning models for audio podcast content summarization
- Conducted data crawling & processing
- Conducted model training & evaluation



Breast Cancer Analysis

Personal project

March 2023 - May 2023

Technology: Pytorch, Scikit-learn, Pillow

Contributions:

- Building E2E application leveraging SoTA Deep learning models to support doctors to analyze early breast cancer
- Conducted image processing & augmentation
- Conducted model training & evaluation