DINH MINH TOAN

AI Engineer

WORK EXPERIENCE

AI Engineer
BAP Software
In charge of AI Application Development
October 2023 - August 2024

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

Research Assistant
Da Nang University of Science and Technology
August 2023 - Present

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

AI Intern in Japan
TAS Design Group
August 2023

Project:
- Developed an 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 AI 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

Technology: SimpleITK, Nibabel, PyTorch

Contributions:
- Processed medical images: CT pelvic.
- Trained and evaluated models for semantic segmentation.

Power Generation & Use Forecasting
Team project for DevDay 2023 & 2024
April 2023 & May 2024

Technology: 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, OpenAI 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, and 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 application leveraging SoTA Deep learning models to support doctors to analyze early breast cancer.
- Conducted image preprocessing & augmentation.
- Conducted model training & evaluation.