

NGOC-TRAM NGUYEN

AI Engineer

✉ tramnt.139@gmail.com ☎ (+84) 385550901 📍 Ho Chi Minh City, Viet Nam
in <https://www.linkedin.com/in/ntrami> 🌐 <https://github.com/ntrami> 🔗 <https://ntrami.github.io>

RELATED PROJECTS

📅 Feb 2023 – Now

📍 Ho Chi Minh City, Viet Nam

- **Video Retrieval System**
 - Processes text queries to identify and retrieve relevant frame videos from a large dataset.
 - Implementing the CLIP model architecture.
 - Stored feature vectors and applied a search algorithm to match the top frames' ID similarity with the text queries.
- **Developing an Early Action Recognition System**
 - Developing a deep learning model to predict human actions in videos from short snippets (10-90% observed).
 - This system has potential applications in traffic accident warnings, patient healthcare monitoring, and other real-time scenarios.

EXPERIENCE

AI Researcher

AISIA Research Lab

📅 Dec 2022 – Now

📍 Ho Chi Minh City, Viet Nam

- **Text-to-Speech Synthesis**
 - Text synthesized into a speech similar to the human voice.
 - Convert Mel-spectrograms (intermediate representation of speech) into high-quality audio waveforms.
- **Developing Radar Waveform Classification Model**
 - Researched paper about waveform classification in radar communication systems to design a novel deep-learning architecture.
 - Preprocessed radar data by generating 12 unique signal representations using MATLAB.
 - Implemented and optimized a deep learning model for robust classification under varying signal-to-noise ratios (SNRs).

AI Engineer

Emage Development Co.Ltd

📅 Jan 2020 – June 2020

📍 Ho Chi Minh city, Viet Nam

- Implemented image pre-processing and post-processing techniques (OpenCV) to enhance the accuracy of deep learning models for semiconductor defect classification.
- Developed an automated labeling algorithm (Python) integrated into a labeling application, achieving a processing speed of 0.02 seconds per click.
- Designed and trained cutting-edge deep learning and machine learning models for robust classification of semiconductor defects.

SKILLS

Coding: Tensorflow, Pytorch, OpenCV, Scikit-Learn, Python

Data Analysis: Python, SQL

Cloud: AWS (AuroraDB, EC2)

Distributed Computing: Docker, Slurm, Bash scripting, Linux (GPU usage)

EDUCATION

Faculty Of Mathematics And Computer Science

Ho Chi Minh University Of Science, Vietnam
National University Ho Chi Minh City

📅 April 2021

- GPA: 7.6/10.0

Master Program in Computer Science

Ho Chi Minh University Of Science, Vietnam
National University Ho Chi Minh City

📅 December 2021 - Now

- Thesis: Developing an Early Action Recognition System
- GPA: 8.2/10.0

AWARD

- **The First Price in Developer Circles Vietnam Innovation Challenge.**
Organizers: Facebook & Coder School
Description: Fraud detection on identification cards. It supports staff to speed up their validation process.
 - OCR: get information from ID card (Google Cloud Vision API).
 - Face comparison: compare the face on the ID card and that on the selfie photo (Amazon Rekognition – AWS).
 - Document template check: validate the template (Template Matching – OpenCV)

REFERENCES

PhD. Tran Anh Tuan

✉ tuanta@vtc.edu.vn

☎ 0364573441

AI Team Leader at Emage Development Co.Ltd