Nguyen Tran Minh Tam

AI Engineering

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Education

Ho Chi Minh City University of Technology- VNUHCM **Aug 2022 – Expected Graduation 2026**

Bachelor of Computer Sience

Experience

IASLab **Feb 2024 – Present**

Member of IASLab Club *Ho Chi Minh City*

- Preprocessed structured data using Pandas; visualized with Plotly, Matplotlib, and YPandas-Profiling.
- Processed image data using OpenCV and NumPy for feature extraction and enhancement.
- Built and evaluated machine learning models for classification tasks like malware detection using SVMs.
- Utilized YOLO for vehicle detection, human counting, and object recognition tasks.
- Designed GAN-based facial generation projects, leveraging various GAN architectures.
- Applied RNNs, Transformers, and BERT for user prompt understanding in STAR-GAN applications.
- Deployed YOLOv5 for product recognition on Raspberry Pi 4 Model B.

Projects

Facial Emotion Generation | *Python, PyTorch Repo* **June 2024 – Dec 2024**

- Developed a StarGAN-based model integrated with WGAN-GP to modify facial expressions in images.
- Utilized PhoBERT to extract emotional information from user prompts.

Malware analysis toolkit | *Python Repo* **Nov 2024 – Present**

- Preprocessed data for malware analysis.
- Implemented an neural network to distinguish between benign and malicious software.

Stochastic Programming | *Python Repo* **Oct 2023 – Jan 2024**

- Use the Gamspy library to solve stochastic programming problems.
- Implemented Successive Shortest Path and Edmonds-Karp algorithms for Two-Stage Stochastic Programming.

AI Shopping Assistant | *Python, Raspberry Pi Repo* **Dec 2022 – May 2023**

- Developed a Raspberry Pi-based system to identify products in a supermarket cart.
- Integrated voice recognition to process customer requests.

IASLab deeplearning | *Python Repo* **Feb 2023 – Present**

- Designed and trained models for image classification, object detection, and image segmentation.
- The repository served as a base for my research and development, supporting more advanced project.

Technical Skills

Programming Languages: Python, C/CPP.
Deep Learning and Machine Learning: PyTorch, TensorFlow, Keras, scikit-learn, OpenCV, Numpy, Pandas.
Generative Models: GANs, Conditional GANs, Variational Autoencoders (VAEs).
Natural Language Processing (NLP): RNNs, Transformers, BERT.
Computer Vision: YOLO, RCNN, Fast RCNN, Faster RCNN, DeepLab.
Data Processing and Visualization: Matplotlib, Seaborn, Plotly.
Embedded Systems: Raspberry Pi, Arduino, ESP32.

Soft Skills

Proficiency in effective communication and teamwork skills.
Adeptness in delivering presentations.
Ability to thoroughly search for and study documents related to the most recent technological advancements.
Skilled in reading and analyzing scientific papers to extract key insights and apply findings effectively.