TRAN PHUONG NAM

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I am an artificial intelligence (AI) engineer/researcher with a strong background in computer science and mathematics. I focus on the multi-modal field which uses multi-data sources and reinforcement learning to achieve a higher performance in the AI model.

EMPLOYMENT

- **K&G Technology** - AI Engineer/Researcher in Computer Vision August 2021 - September 2023

  Achievements/Tasks:

  - Implemented a deep learning model from a research paper using TensorFlow, PyTorch, and JAX frameworks to achieve high performance in a specific task.
  - Converted the deep learning model between various formats, including TensorFlow, PyTorch, ONNX, TFlite, and NCNN, enabling deployment on mobile devices and embedded systems such as Android, iOS, and Jetson Nano.
  - Conducted research on advanced computer vision algorithms for solving complex problems such as object detection, image segmentation, classification, image processing, image super-resolution, multi-object tracking, and multi-camera tracking.
  - Successfully deployed an AI model on Amazon Web Services using Docker, Linux, and Django, providing a user-friendly web interface for clients to use the model.
  - Maintained the company's AI server system, ensuring the robustness and stability of the system by managing the Ubuntu operating system, drivers, CUDA, and the local network.

- **Gradients Technologies** - Postgraduate Researcher in Artificial Intelligence June 2022 - April 2023

  Achievements/Tasks:

  - Conducted research and implemented a deep learning model for creating a 3D avatar person from 2 images of the subject's front and back. The model utilized feature extraction, camera parameter estimation, and surface reconstruction techniques to generate a 3D model of the subject.
  - Conducted research and implemented a deep learning model for automatic attendance that achieved high accuracy in identifying and tracking individuals using facial recognition and object detection methods.
  - Conducted research and implemented a deep learning model for question-answering using the fusion-in-decoder approach. The model was able to incorporate context information from the input sequence to achieve high performance on a benchmark dataset.
  - Conducted research and implemented a deep learning model for visual question-answering using the PaLI model. The model combined a pre-trained language model with a ViT encoder to achieve high accuracy in answering questions about images.

EDUCATION

- **FPT University, Ho Chi Minh** August 2019 - Dec 2022

  Bachelor in Information Technology

  Field: Artificial Intelligence

  GPA: 3.572/4.0

- **VietAI, Ho Chi Minh** October 2020 - May 2021

  Foundation 07 Machine Learning/Artificial Intelligence at VietAI

  Field: Computer vision, Natural language processing

- **Ural Federal university, Russia** 5 July - 28 July 2021

  Power Plant Engineering

  Field: Machine Learning

- **UOW Malaysia KDU Penang University College, Malaysia** November 2019 - December 2019

  English Enhancement Programme

  Field: English

PUBLICATIONS

- **Phuong-Nam Tran**, Thuy-Duong Thi Vu, Nhat Truong Pham, Hanh Dang-Ngoc, and Duc Ngoc Minh Dang, "Comparative analysis of multi-loss functions for enhanced multi-modal speech emotion recognition", The 14th International Conference on ICT Convergence (ICTC 2023), Jeju, Korea, Oct 11-13, 2023
- Duc-Hieu Hoang, Duc Ngoc Minh Dang, Hanh Dang-Ngoc, Anh-Khoa Tran, **Phuong-Nam Tran**, and Cuong Tuan Nguyen, "RBBA: ResNet - BERT - Bahdanau Attention for Image Caption Generator", The 14th International Conference on ICT Convergence (ICTC 2023), Jeju, Korea, Oct 11-13, 2023 (**Best paper**)
- Duong Thanh Tran, Nguyen Doan Hieu Nguyen, Trung Thanh Pham, **Phuong-Nam Tran**, Thuy-Duong Thi Vu, and Duc Ngoc Minh Dang, "Vitexco: Exemplar-based Video Colorization using Vision Transformer", The 14th International Conference on ICT Convergence (ICTC 2023), Jeju, Korea, Oct 11-13, 2023
- **Phuong-Nam Tran**, Thuy-Duong Thi Vu, Nhat Truong Pham, Duc Ngoc Minh Dang, and Anh-Khoa Tran, "Multi-modal Speech Emotion Recognition: Improving Accuracy through Fusion of VGGish and BERT Features with Multi-head Attention", 9th EAI International Conference on Industrial Networks and Intelligent Systems (EAI INISCOM 2023), Ho Chi Minh City, Vietnam, Aug 2-3, 2023

HONORS AND AWARDS

- **RBBA: ResNet-BERT-Bahdanau Attention for Image Caption Generator** Received **Best Paper Award** at the 14th International Conference on ICT Convergence - ICTC 2023

LANGUAGE AND SKILL

- **Languages**: English (CEFR B1, IELTS 6.5), Vietnamese (native)
- **Skills**: Python, Java, C++, PyTorch, TensorFlow, Jax, Docker
- **System**: 2 years of experience in deploying AI models on Linux systems, Docker, cloud platforms, Embedded systems, Android, and iOS.
- **Certifications**: Drive