TRẦN KIM DŨNG

Phone: +84984622803 / Email: kimdunghk200504@gmail.com
LinkedIn: https://www.linkedin.com/in/kim-dung-tran-50419129b/
Github: https://github.com/DUNGTK2004
Address: Cau Giay, Ha Noi, Viet Nam

EDUCATION

Vietnam National University (UET - VNU) **Cau Giay, Ha Noi, Viet Nam**
9/2022 - 1/2026

- **Major:** Artificial Intelligence
- **GPA**: 3.58/4

EXPERIENCE

UET-IAI Lab *9/2024 - now*

AI Research Assistant

- Gain the knowledge of Machine learning, Deep learning, Computer Vision, Image Processing.
- Guided and attended seminars on key papers like ResNet, ViT, YOLO, and U-Net, etc.
- Participated in projects as **Real-time filter app** under the guidance of mentors.
- Contributing to the development of a computer vision software for a collaborative project with **Vietnam Airlines** to evaluate flight attendant standards.

PROJECTS

UET-IAI Lab - Filter Realtime Application *(1 member)* *9/2024 - 11/2024*

Link*: https://github.com/DUNGTK2004/Filter-realtime-gradio.git*

- **Description:**
  - Real-time Filter and Swap Face Application with Facial Landmark Detection
  - Developed a real-time facial filter application that using deep learning for facial landmark detection, allowing users to apply various filter as cat nose, dog, Ronaldo face, anonymous mask
- **Technologies/libraries:**
  - Frameworks/Librariess/platforms: Hydra, Pytorch, Pytorch-lightning, Opencv, Gradio
  - Tool: Git, Wandb, Docker
- **Responsibilities:**
  - Processed data, trained a **ResNet** model using **Hydra and PyTorch Lightning** to optimize facial keypoint prediction.
  - Using **YOLOv8-face** to detect face boundingboxs.
  - Apply **Delaunay Triangulation** and **Affine Transform** to smooth movement and apply filter on the faces.
  - Built a real-time app using Gradio and containerized it with **Docker**

UET-IAI Lab - Vietnam Airlines Attendant Evaluation System *(8 member)* *3/2025 - now*

- **Description: (Ongoing)**
  - Developing a computer vision system for the Vietnam Airlines Flight Attendant Standards System to evaluate pre-flight readiness, ensuring compliance of uniforms, hair, skin, accessories, and ID recognition (ongoing).
- **Technologies/Libraries:**
  - Frameworks/Libraries/platforms: Opencv, Huggingface, Pytorch
  - Pretrain models: YOLO, YOLO-pose, SegFormer-B2, GroundingDINO, ...
  - Tool: Git
- **Responsibilities:**
  - Utilize **SegFormer-B2** to segment flight attendant uniforms
  - Using and finetuning **YOLO-detect, YOLO-segment, YOLO-pose** to detect button, type of clothes, ...
  - Evaluate wrinkles, stains, and button status using **edge detection** and **color detection** algorithms

VNU-UET - ArticleQA *(1 member)* *2/2025 - 3/2025*

- **Description:** Developed a basic RAG-based QA system to extract accurate answers from a scientific article.
- **Technologies:**
  - Frameworks/Libraries/Platforms/Technologies: Langchain, FastAPI, Google Gemini, Chroma
- **Responsibilities:**
  - Developed and deployed a **FastAPI** API for extracting information from research papers.
  - Integrated **LangChain** to build a pipeline for answering questions from the paper content.
  - Combined **Google Gemini** with vector databases (e.g., **Chroma**) for efficient retrieval and generation.

VNU-UET - Watch&Chill *(4 member)* *3/2024 - 6/2024*

Link: https://github.com/meth04/movie_website.git

- **Description:** A smart movie website with personalized recommendations.
- **Technologies:**
  - Frameworks/Libraries/Platforms: ExpressJS, Flask, HTML, CSS
  - Technologies: MySQL
  - Tool : Git, Docker
- **Responsibilities:**
  - Develop a scalable Express.js backend following the MVC architecture.
  - Enable authentication, CRUD, movie search, trailer previews, and user reviews.
  - Integrate a smart recommendation engine using Collaborative & Content-Based Filtering.

SKILLS

Programming Languages: Python, Javascript
Frameworks & Libraries: Hydra, Pytorch, Pytorch-lightning, Gradio, ExpressJS, Sklearn, Numpy, Pandas, Langchain
Technical skills: Machine learning, Deep learning
Database Management Systems: MySQL
Tool: Git, Wandb, Docker
Operating System: Window, Linux
CS Fundamental: Database, DS&A, OOP
ML Architectures: CNN, RNN, LSTM, GRU, Transformers
Languages: English: **TOEIC - 825**, Vietnamese (native)

AWARDS & CERTIFICATIONS

- **Third prize** in the 11th-grade provincial physics competition.
- **Second prize** in the 12th-grade provincial physics competition.
- Machine learning specialization on Coursera.
- **University Scholarship - UET,**
- *(Rewarding academic excellence semester: 20242)*