Huynh Tan Khang

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AI ENGINEER

I'm Huynh Tan Khang and currently a CS student at UIT in Ho Chi Minh. In my leisure time, you'll often find me listening to music and researching. This dual interest not only provides relaxation but also fuels my curiosity especially in AI term because my life motto is never to be satisfied with oneself about the world around me. In terms of my future vision, I aspire to become an AI engineer

EDUCATION

Pursuing Bachelor of Computer Science

International Joint program of University of Information Technology(UIT) - Birmingham City University
https://oep.uit.edu.vn/vi/nganh-khoa-hoc-may-tinh-bcu

CGPA: 3.7 Oct 2023 - May 2026

EXPERIENCE

Research Assistant

Applied Machine Learning in Mekong Delta's climate change

UIT – June , 2024 to August, 2024

KEY COMPETENCIES

Language, Tool, Skill:

- **Language**: C++, Java, Javascript, Python, SQL
- **Tool**: Github, Linux, Jupyter Notebook, Venv, Docker, AWS
- **Skill**: Problem Solving, Teamworking, Researching and Communication, English Representation
- **English:** 6.0 Ielts

Framework:

- **Machine Learning**: Scikit-learn, XgBoost, LightGBM ,Optuna, Keras, Tensorflow, OpenCV, YOLO, Pytorch, OpenCV, Pillow, HuggingFace
- **Data Analytics**: Pandas, Numpy, Matplotlib, Seaborn, Plotly
- **Web Development**: Nodejs, Expressjs, React.js, Next.js, Spring Boot, FastAPI

PROJECT

Smartphone Price Analyze And Prediction (Individual)

https://github.com/tkhangg0910/Smartphone-Analysis-And-Prediction

Languge and tool: Python, Pandas, Matplotlib, Seaborn, Plotly, XgBoost, LightGBM, Optuna

Key Skills:

- Perform **Exploratory Data Analysis (EDA)** to uncover patterns, identify relationships, and detect anomalies in data
- Conduct data wrangling and **preprocessing** tasks, including **handling missing values, one-hot encoding, and ordinal encoding**
- Implement **cross-validation, hyperparameter tuning** using Scikit-learn's **RandomSearch, GridSearch,** and **Optuna** for optimization

PACMAN-Deep Q Learning (Individual)

https://github.com/tkhangg0910/RL-Pacman-DQN

Language and tool: Tensorflow, Keras, OpenCV, Gymnasium, ale-py, Matplotlib, Venv

Key Skills:

- **Applied Double Deep Q-Learning architecture using CNN to build models with Keras and TensorFlow Functional API**.
- **Implemented Experience Replay** to enhance the training process
- Utilized **OpenCV** for **preprocessing** tasks such as **normalizing** ,**cropping**, **rescaling**, and **converting images from RGB to grayscale**
- Utilized **Linux** for training with **GPU support**, using a **virtual environment** for dependency management and efficient execution.

The Vanguard Warrior - Fire Protection System (Group)

https://github.com/The-Vanguard-Warrior

Language and tool: Ultralytics(YOLOv8), Sklearn, Flutter, Flask, OpenCV, Arduino

Key Skills:

- Leveraged **transfer learning** with the **YOLOv8** model to detect fire, smoke, which trained on **GPU** using **Google Colab**.
- Developed software applications using **Flutter** for the frontend and **Flask** for the backend.
- Employed **Scikit-learn's Random Forest** algorithm to detect fires based on **sensor data.**

Face Recognition System (Individual)

https://github.com/tkhangg0910/Face-Recoginition-System

Language and tool: Ultralytics(YOLOv8), Pytorch , FastAPI, Nextjs, OpenCV, Pillow, dlib, Milvus

Key Skills:

- Leveraged **transfer learning** with the **YOLOv11-Face** and **Inception-Resnet** model to detect face and embed face
- Developed software applications using **FastAPI** as Backend, **Nextjs** as Frontend, and **Milvus** as **Vector Database** to perform better vector search and store.
- **containerize** all of source code for deployment using **Docker**
- Using **Face Alignment** and store multiple image of each person to make a model more robust and prediction more accurate,

CERTIFICATIONS

Machine Learning Specialization (Coursera)
Stanford, DeepLearning.AI

Deep Learning Specialization (Coursera)
DeepLearning.AI

Mathematics for Machine Learning and Data Science Specialization(Coursera)
DeepLearning.AI

Mathematics For Machine Learning Specialization (Coursera)
Imperial College London

Data Analytics with Python Programming Language
Cybersoft