



# Nguyễn Đức Trọng

AI engineer

*Semper Paratus*

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## Education

### FPT University (FPTU)

Bachelor of IT - Artificial Intelligence

Oct 2020 - June 2025 (Full time)

GPA: 8.7/10 (3.48/4)

## Languages

Vietnamese: native

English: IELTS 6.0 (Exp. 10/2024)

## Programming Languages

Python, Latex, Lua.

## Databases

TSQL

## Frameworks & Libraries

Pytorch, Keras, Huggingface, Tensorflow, Cupy, Scipy, OpenCV, Numpy, FastAPI, gradio, ffmpeg

## Others

Docker, Linux (Ubuntu), Git, Vercel, Cloud (EC2), Jira, Microsoft Project, Jenkins

## Certificates

### Coursera organizer

Tensorflow Developer, Natural Language Processing, Academic Writing, Project Management, Deep Learning IBM introduction to ML Software Development Lifecycle

### Hackerrank organizer

Basic Python, Basic SQL, Intermediate SQL

## Pastimes

Coding, Reading, Listening to music, Traveling, Studying language

## Specialty

- Experience in research, plan, design and implement a comprehensive AI solution from scratch, mostly CV-related projects.
- Have a good foundation in ML, DL, CV & DL.
- Have an exposure to LLM and generative AI.
- Skilled in data processing, model training & evaluating,

## Experience

### Face attribute

Internship at Quy Nhơn AI

Spring 2024

**Role:** Model trainer & evaluator.

**Description:** Infer age, gender based on extracted face features from deep learning models.

**Task:** Label image data with a simple self-implemented CLI tool and implement train/ test pipeline for gender classification task.

**Skill set:** Python, Pytorch, OpenCV, Docker, Jenkins.

## Projects

### Anomalous Human Activity Detection By Weakly Supervised Learning

Bachelor capstone project

Spring 2025

**Description:**

- Scheduled and managed all activities of a five-person team from research to execution.
- Applied knowledge distillation technique to optimize model parameters but maintaining credibility of predicted result.
- Employed MLOps practice (4/9 principles) with the assistance of third-party services, namely lakeFS, mlflow, and Github, into solution pipeline to mitigate technical debt phenomenon.
- Self-hosted data server for orchestrating gathered data, which served as a part of practicing MLOps.

**Impact:** Reduce intensive human annotating and be a preliminary step for build smart city down the road.

**Future development:** Extend experimentation to other kinds of learning, integrate more third-party services for serving other MLOPs principles.

**Skill set:** Python, Pytorch, Docker, lakeFS, mlflow, Huggingface, Bash, ffmpeg, Microsoft Project.

### Fashion AI (FAI)

Entrepreneurial project

Fall 2024

**Description:**

- Coordinated and reconciled all activities of an interdisciplinary eight-person team from conceptualizing to market launch.
- Implemented virtual try-on pipeline (VTON) and API for communicating with .Net back-end.
- Handling tremendous stable diffusion pipeline inference with disk offloading

## Cursor Controlling with Hand Gestures

Personal project

Status: Refactoring (Summer 2023 - present)

**Description:** A simple app that utilizes a pretrained handlandmark detector of MediaPipe Solution to perform several pre-defined actions such as mouse hovering, volume control, tab transition, etc.

**Skill set:** Python, OpenCV, MediaPipe Solutions, Async handling.

## Extracurricular Activities

### Spring Volunteer Campaign

Lửa Tâm Club (USSH)

Spring 2022

Participated in online fundraising campaign during COVID-19 pandemic outbreak period in Ho Chi Minh city, and the funded money was donated to the Thiên Ân Elderly Care Center at Thu Duc city.