Tran Dang Trung Duc - AI Engineer

+84-33.265.8181

Open to AI Engineer / AI Researcher / Data Scientist

trandangtrungduc@gmail.com

Personal Website - LinkedIn - Github - Google Scholar - Kaggle - StackOverflow

Education

•Master Program (Artificial Intelligence) *09/2022-02/2025*

Department of Electrical and Information Engineering, SNUT, South Korea GPA: **4.45/4.5** with 33 credits

•Master Program - 1 semester (Data Science) *11/2021-03/2022*

Department of Computer Science and Technology, HCMUT - VNUHCM, Vietnam GPA: 8.07/10 with 18 credits

•High-Quality Engineer Program - Equivalent to Master (Mechatronics) *09/2015-03/2016, 04/2017-11/2021*

Department of Mechanical Engineering, HCMUT - VNUHCM, Vietnam GPA: 7.87/10 with **268 credits**

•Japanese Preparatory Class of Government Scholarship (Japanese) *04/2016 - 10/2016*

Department of Japanese, Hanoi Univeristy, Vietnam **N3 (Top 1 score)** and **N2 in 10 months**

Experience

•Seoul National University of Science and Technology *09/2022-present*

AI Researcher and Teaching Assistant

- **Core member** working on a project of 3D Digital Media Streaming Service Technology in part by the National Research Foundation of Korea grant **funded by the Korea government**.
- **Core member** working on a project of 4D Lidar Panoptic Segmentation with SemanticKITTI dataset (object recognition application for autonomous vehicles) **funded by the Korea governmen**t.
- Tasks: analyzing project requirements (3D instance segmentation / 4D panoptic segmentation), research existing AI methods to find strengths and weaknesses, propose and develop a novel solution that ensures requirements with higher performance.
- ACHV: **Top 2 mAP_{25} highest score** on the 3D Semantic Instance Benchmark. **A patent** of application (Korea). Winner of **Excellent Thesis Award** for Graduate Student.

•Bosch Global Software Technologies Company Limited *05/2021 - 08/2022*

Software Developer Engineer

- Working on automotive steering developer team for the Chinese OEM and Japanese OEM.
- Tasks (multi-task orientation): developing components and functions on demand, first person to approach Jenkins (write code for integration test and retrain the team), Lab-testing, unit testing, requirement checking.
- Knowledge & Tools: general process, SDLC (V-model), IBM ClearQuest, IBM ClearQuest, IBM ClearCase, Static Code Analyzer, and internal tools.
- ACHV: **25%** increase in **work efficiency** after first 3 months of official employment, develop internal python-based tools to **reduce task** time by **2 times.**

•CBD Robotics Limited Liability Company *04/2021 - 10/2021*

AI Internship

- Learned and practiced the fundamentals of Machine Learning (EDA, Feature Engineering, Hypothesis, Bagging, SVM, Clustering,...) and Deep Learning (Image classification, Topic modeling,...).
- Final Project: a rule-based combined with model-based (ParlAI) Chatbot for a laptop business, deployed on GCP.
- ACHV: **Top 1 highest project score** of the bootcamp.

Personal Project

•An LLM Application of Video to Text to Image Using Gemini *03/2025-03/2025*

A non-profit project to make a web application.

Co-developer of a large language model (LLM) using Gemini 2.0 Flash for recognizing the speech of video and converting it to text.Tools: Flask, Langchain, Gemini API.

•Master Thesis *11/2024-12/2024*

Transformer-based 3D Instance Segmentation Using Superpoint Feature and Spatial Control.

Transformer application in 3D point cloud recognition with ScanNet and S3DIS dataset. Tools: PyTorch, PyTorch3D, PLY, Open3D, OpenCV, Spconv, Gorilla, Pyviz3D.

•An LLM Application of Research Summary Using Llama *10/2024-10/2024*

A non-profit project to make a web application.

Self-developed a large language model (LLM) using Llama 3.2 for research summarization as well as image analysis. Tools: Gradio, Llama API.

•An AI Dictionary for Vietnamese People *06/2021-12/2021*

A non-profit project to make a mobile application and an AI dictionary website for Vietnamese people.

Member of the project's leadership team. In charge of vocabulary translation work, vocabulary sources, and reviewing works.

•Engineering Thesis *04/2021-08/2021*

Computer vision for mobile robot find a target and grasping.

Co-author of a graduation thesis on the application of Q-learning and image processing for mobile robot carrying an arm to pick up objects at the destination. Tools: OpenCV, Tensorflow, Embedded.

•MLP for Mobile Robot *04/2021-08/2021*

A non-profit project.

A simple mobile robot model that runs automatically along a predetermined line using multi-layer perceptron neural network. Tools: Tensorflow, Embedded.

Research Publication

[1] **Tran DD**, Kang B, Lee Y. MSTA3D: Multi-scale Twin-attention for 3D Instance Segmentation. In Proceedings of the 32nd ACM International Conference on Multimedia 2024 Oct 28 (pp. 1467-1475).
[2] Park Y, Park Y, **Tran DD**, Kim M, Kim H, Lee Y. SP2Mask4D: Efficient 4D Panoptic Segmentation Using Superpoint Transformers. In2025 International Conference on Electronics, Information, and Communication (ICEIC) 2025 Jan 19 (pp. 1-4).
[3] **Tran DD**, Lee Y. Transformer-supported Tackling 3D Point Cloud Instance Segmentation. In Proceedings of the 10th Annual Conference of Vietnamese Young Scientist (pp. 40).

Achievement

Scholarship: **75% tuition scholarship** for all semesters at SNUT, Korean professor scholarship, **top 10 students** receive Vietnamese government scholarships for nuclear energy, Vietnam-Japan human resource training scholarship at HCMUT, **top 2 students** recieve **100% tuition scholarship** at IPU, **full PhD scholarship** in Artificial Intelligence,...

Interest

Languages: Vietnamese (native), English (professional), Japanese (N2), French (B1).
Programming Languages: Python (main), C, C++, Matlab.
Tools & Libraries: Git, Docker, PyTorch, Pandas, Open3D, PLY, OpenCV,....
Soft Skills: Hard-working, Self-learning, Problem Solving, Adaptability.

Portfolio

Personal Website (Project Demo, Blog, News): https://trandangtrungduc.github.io
Linkedin: https://www.linkedin.com/in/trandangtrungduc/
Google Scholar: https://scholar.google.com/citations?user=oY73f20AAAAJ&hl=en
Github: https://github.com/trandangtrungduc
HuggingFace: https://huggingface.co/TDTDuc
StackOverflow: https://stackoverflow.com/users/19921706/trandangtrungduc
Kaggle - 3 x Expert (Dataset, Notebook, Discussion): https://www.kaggle.com/ctrnngtrung