NHAN NGUYEN TU THANH

AI Engineer

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SUMMARY

Passionate AI specialist with a strong background in research and mathematical principles. Excels in competitions, showcasing proficiency in AI. Seeking Data jobs to contribute expertise in driving innovation and solving complex problems. Committed to pushing the boundaries of artificial intelligence for a limitless future.

EXPERIENCE

AI Bootcamp Trainee
Cinnamon AI

📅 June 2023 – Present   📍 Ho Chi Minh City

- **Mentor:** Mr. Tyler
- Learn about Computer Vision, Natural Language Processing (from basic to advance); AWS and DVC.
- Currently, I am working on a challenging final project, which involves developing a 3D motion-capturing system.

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Research Student
ELO Lab, UIT

📅 April 2022 – Present   📍 Ho Chi Minh City

- **Instructor:** PhD. Hoang Ngoc Luong
- Focus on studying optimization techniques, evolutionary algorithms, and reinforcement learning.
- Create the first neural zero-shot NAS procedure to discover SOTA architectures for CIFAR-10 under 1M parameters.

EDUCATION

University of Information Technology, VNUHCMC

📅 September 2020 – Present   📍 Ho Chi Minh City

- *Bachelor's Degree (**Honors Program - top 5% students**)*
- **Major:** Computer Science
- **GPA:** 8.97/10.00

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Vo Nguyen Giap High School for the Gifted

📅 September 2020 – Present   📍 Quang Binh Province

- *Highschool Diploma*
- **Specialty:** Mathematics
- **GPA:** 9.0/10.0

HONORS, AWARDS AND ACHIEVEMENTS

- Odon Vallet Scholarship recipient.
- Secured the **Third prize of Vietnam Mathematical Olympiad 2020**.
- Earned the prestigious Entrance University Scholarship of **40M VND**.
- Achieved the **Second prize in the Ho Chi Minh AI Challenge 2022** after winning the Consolation prize in the competition 2021.(top 1% participant).
- Awarded Prize C in the UIT Honor Challenge Scholarship 2022, followed by **prize B of UIT Honor Challenge Scholarship 2023**, totaling **50M VND**.
- In 2022, at the National Mathematical Olympiad for University Students, I won **Second prize in Algebra** and the Consolation Prize in Calculus. In 2023, I won Third prize in both Algebra and Calculus.

PROJECTS

Event Retrieval from Visual Data

📅 2022   📍 AI Challenge HCM

- **Description:** Utilizing the CLIP model for keyframe and text information extraction, combined with the SCANN model for nearest neighbor search, secured the **Second Prize at the Final Round** of AI Challenge HCM 2022 for video segmentation from 300 hours of news.
- **My contributions:** Building a web interface that enables keyframe searches based on text queries.
- **Tech stack:** FastAPI, ReactJS, MongoDB, Docker.

Body Segmentation and Action Recognition

📅 2022   📍 BKAI-Naver AI Challenge

- **Description:** We trained and employed the Unet model for body segmentation preprocessing on each frame of the provided shorted-video-type dataset to solve the gesture recognition problem. By leveraging SlowFast's video feature extractor for gesture recognition, we achieved the **9th rank in the public test** at BKAI-Naver AI Challenge 2022.
- **My contributions:** I led the team and played a crucial role in exploring and experimenting with various gesture recognition models as part of our efforts to solve the problem.

Medicine Pill Image Recognition

📅 2022   📍 AI4VN Competition - VAIPE

- **Description:** Detecting and recognizing pills involves using FGVC-PIM for classification and Yolov7 for detection. With this approach, we achieved the **6th position in the Public Test round** of AI4VN Competition - VAIPE 2022, showcasing our successful pill identification system for prescriptions and pills not listed on prescriptions.
- **My contributions:** Relabeling the dataset and conducting extensive experiments with detection and recognition models, resulting in improved model performance.

Vietnamese Scene Text Recognition

📅 2021   📍 AI Challenge HCM

- **Description:** We developed a method to detect and recognize text captured in diverse environments using different camera types. By employing ABCNetv2 for text detection and utilizing VietOCR and SRN for recognition, our system achieved recognition accuracy and earned the **Consolation Prize in the Final Round** of AI Challenge HCM 2021.
- **My contributions:** Data collection, relabeling, analysis, and designing an innovative pipeline, contributing to the project's success in achieving reliable outcomes.

CERTIFICATES

- **Math and Science Summer Program 2021**   VIASM
- **Project in Math and Application Research Summer Camp 2021**   PIMA
- **Computational Thinking for Problem Solving 2022**   Michigan
- **Problem Solving Using Computational Thinking 2022**   Penn

SKILL HIGHLIGHTS

- **Programming:** Python, C/C++, Javascript
- **Frameworks/ Platforms:** Pytorch, Tensorflow, FastAPI, Gradio, Streamlit, ReactJS, NodeJS, Bash scripting, AWS, Label Studio, MySQL, MongoDB, Git, DVC, Docker
- **CS-related:** Computer Vision, Natural Language Processing, Reinforcement Learning, AutoML
- **Mathematics:** Discrete Mathematics, Probability and Statistical, Calculus, Optimization, Linear Algebra
- **Languages:** Vietnamese (Native Proficiency), English (Professional Working Proficiency)