

# Do Thi Minh Trang

DATA SCIENTIST INTERN · MACHINE LEARNING INTERN · DEEP LEARNING INTERN

☎ (+65) 81437233 | ✉ DO0009NG@e.ntu.edu.sg | 🌐 <https://trangdo2104.github.io/TrangDo2104Portfolio.github.io/> | 📱 Trangdo2104 | 🌐 [www.linkedin.com/in/trangdo2104](http://www.linkedin.com/in/trangdo2104)

## Education

### Nanyang Technological University

Singapore

B.S. CHEMICAL AND BIOMOLECULAR ENGINEERING WITH MINOR IN COMPUTING AND DATA ANALYSIS

Aug. 2022 - May. 2026

- **Awards:** ASEAN Scholarship for Undergraduate
- **GPA:** 4.53, CGPA: 4.23
- **Relevant Modules:** (1) Intro to Computational Thinking to Programming; (2) Intro to Data Science and AI; (3) Engineering Statistics; (4) Decision Tools for Engineering Business; (5) Engineering Mathematics
- **Virtual Training and Development:** (1) Machine Learning Specialization (2) Deep Learning Specialization (3) Mathematics for Machine Learning (4) IBM Data Science (5) IBM Data Analyst (6) The Data Science Course 2023: Complete Data Science Booth Camp

## Skills

**Programming** Python, MATLAB, VBA, LaTeX, Java, HTML

**Frameworks** TensorFlow, PyTorch, FastAI, Keras, Scikit-Learn, OpenCV, Matplotlib, Seaborn Pandas, NumPy, PowerBI, Tableau, Gradio, Streamlit

**Others** Git, Github, AWS

## Experience

### Undergraduate Research, Nanyang Technological University - National Institute of Education

Singapore

URECA PROJECT - ANALYSING CLASSROOM AUDIO-VISUAL DATA USING ARTIFICIAL INTELLIGENCE/MACHINE

Aug. 2023 - June. 2024

LEARNING

- Engineered a highly accurate (95%) Singlish speech recognition system using PyTorch, incorporating extensive data preprocessing and custom annotation.
- Advanced sentiment analysis in an educational context by customizing a transformer-based NLP model, specifically targeting educational sentiment expressions.
- Implemented noise remover and audio normalization techniques to enhance the quality of sparse Singlish audio datasets for efficient machine learning model training.

## Personal Projects

### Face Recognition and FaceID Application Developer

GITHUB

- Developed a robust preprocessing pipeline featuring targeted image resizing and augmentation, effectively countering overfitting and boosting model accuracy.
- Designed and implemented a custom MobileNet architecture in TensorFlow, incorporating L1 Distance layers to enable advanced one-shot face verification.
- Fine-tuned a Siamese neural network to achieve 99% precision and recall within five epochs, significantly surpassing baseline models and improving computational efficiency by 60%.
- Crafted an intuitive user interface using the Kivy framework for a high-performance face recognition application, enabling seamless FaceID functionality.

### Custom Implementation and Fine-tuning of Stable Diffusion with LoRA

HUGGING FACE

- Developed a custom version of the Stable Diffusion model from the ground up, focusing on a detailed understanding of its transformer and autoencoder architectures.
- Applied Low-Rank Adaptation (LoRA) for fine-tuning the model, successfully adapted the model to replicate the distinctive artistic style of "Waltz with Bashir".
- Successfully deployed the modified model on Hugging Face, utilizing Gradio for an interactive and user-friendly interface.

## Leadership

### NTU Vietnamese Freshmen Orientation Camp

Singapore

CHAIRPERSON

Jul. 2022 - Aug. 2023

- Led a diverse team of 40, comprising 8 main and 32 sub-committees, to successfully organize fundraising events and secure fund from sponsors.
- Co-founded student-based support group for potential students organized 100+ seminars
- Fostered partnerships with educational centers, providing support to over 40 Vietnamese freshmen at NTU.
- Orchestrated a successful Freshmen Orientation Camp, engaging 130 campers, including freshmen, seniors, and alumni, on 12th and 13th August 2023.