

# Thao Nguyen Tran Thi

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## Education

### Ton Duc Thang University

Ho Chi Minh City, Vietnam

Bachelor of Science, Computer Science. GPA: 7.72/10 (Current)

Expected Graduation: October 2026

Relevant Coursework: Data Structures, Introduction to Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Massive Data Processing.

## Experience

### University Project — Ton Duc Thang University

Ho Chi Minh City, Vietnam

#### Last-Mile Delivery Optimization Model (VRPTW, Tabu Search)

September 2025 – December 2025

- Developed a Vehicle Routing Problem with Time Windows (VRPTW) model using Tabu Search heuristic.
- Implemented Python modules for neighborhood generation, cost evaluation, and aspiration criteria.
- Analyzed trade-offs between travel distance, time windows, and fleet utilization using real-world dataset (Delivering Data – Zenodo).
- Visualized optimized delivery routes and algorithm performance metrics with Matplotlib and Pandas.

### Deep Learning Project — Ton Duc Thang University

Ho Chi Minh City, Vietnam

#### Visual Question Recognition Model (CNN and Transformer Decoder)

March 2025 – March 2025

- Built a neural architecture combining CNN for image feature extraction and Transformer Decoder for text generation.
- Trained on annotated visual-question datasets and achieved 89% BLEU score.
- Experimented with attention visualization and beam search for improved sequence generation.

### Deep Learning Project — Ton Duc Thang University

Ho Chi Minh City, Vietnam

#### Optical Character Recognition using CNN and Transformer Models

April 2025 – May 2025

- Collected and preprocessed image datasets containing various fonts and handwriting styles.
- Designed and trained a Convolutional Neural Network (CNN) combined with a Transformer decoder for sequence prediction.
- Improved text extraction accuracy by applying data augmentation and fine-tuning learning rate schedules.

## Leadership & Activities

### Ton Duc Thang University

Ho Chi Minh City, Vietnam

#### Team Leader — Last-Mile Delivery Optimization Project

September 2025 – December 2025

- Led a 3-member team to design and implement a VRPTW optimization model using Tabu Search.
- Coordinated weekly progress tracking and report submission.

### Ton Duc Thang University

Ho Chi Minh City, Vietnam

#### Team Leader — Massive Data Processing Course Project

April 2025 – May 2025

- Directed a 4-member team to implement collaborative filtering and PageRank algorithms.
- Oversaw code integration and ensured timely completion of deliverables.

## Skills & Interests

**Technical:** Python, C#, SQL, TensorFlow, PyTorch, Scikit-learn, SQLite, GitHub, Google Colab, Kaggle  
**Language:** Vietnamese (Native), English (Intermediate – can communicate and read technical documents)  
**Laboratory:** Data Preprocessing, Model Training, Evaluation Metrics  
**Interests:** AI research, data visualization, models training, reading tech blogs