

# Nguyen Trong Phan

91304300 | phannguyentrong95@gmail.com | linkedin.com/in/phannguyen0605 | github.com/phannng0605

## EDUCATION

### Nanyang Technological University

*Bachelor of Computing in Computer Science with Minor in Business*

Singapore, Singapore

June 2022 - June 2026

- **CGPA:** 4.51/5.0
- **Awards:** ASEAN Scholarship for Undergraduate.
- **Courseworks:** Deep Learning Specialization, Google Professional Data Analytics, Excel Skills for Data Analytics and Visualization, Visual & Predictive Technique, Investment Management with Python and Machine Learning.
- **Volunteering:** Content Specialist of Vietnamese Youth Alliance in Singapore, Vice Chairman of Vietnamese Freshmen Orientation Camp, Member of NTU Heritage Club, Member of NTU EarthLink.

## EXPERIENCE

### Machine Learning Intern

September 2023 – January 2024

*Thales*

*Thales Solutions Asia, Singapore*

- Conducted object detection training using YOLOX models on a custom dataset to enhance the SMRT system across various scenarios, reduced passing time through gate by 20%.
- Executed customized training on YOLOv models and conversion of data formats between Cocoson and txt, improved accuracy by 72%.
- Developed scripts for continuous testing model on videos in 48 hours, involving video input, frame extraction with customised fps rate, timestamp marking, YOLO object detection, result logging in a timestamped txt file.

### AI & ML Intern

May 2023 – August 2023

*A\*STAR - Agency for Science, Technology and Research*

*A\*STAR, Singapore*

- Researched on project of "Question Tagging using Knowledge and Casual Inference" with Dr. Zhou Nina.
- Analysed and evaluated various Language Model Models (LLMs), including LLaMa, Alpaca-Lora, and RoBERTa. Conducted local loading and testing of models with personal data, requiring data cleaning and preprocessing.
- Constructed text sentiment analysis model using Sentence-Transformer (SBERT) to map question text with outcomes and topics, achieved accuracy of 70%.
- Fine-tuned pre-trained cross/bi-encoders to training models from scratch with customized data.

### Student Research Assistant

March 2023 – May 2023

*Nanyang Technological University*

*Singapore, Singapore*

- Collected and analysed traffic data on-site through manual methods and video recording, organizing and labelling over 2000 pictures.
- Modified YOLOv5, adapting model to generate both object bounding boxes and re-identification (re-id) features. Involved adjusting loss functions, data loaders, and the YOLOv5 network.

## PROJECTS

### Facial Recognition Attendance System with Real-Time Database Integration

- Developed a robust facial recognition algorithm to identify and verify preloaded students.
- Implemented an attendance tracking mechanism integrates with real-time database, ensuring instant storage of attendance records.
- Fetched people's information from Firebase presented in JSON format for enhanced flexibility.

### Real-Time Stock Price Prediction with LSTM Neural Network

- Integrated online real-time stock data feed, ensuring model's predictions were based on latest market information.
- Applied Min-Max Scaling to stock prices, optimizing model's performance, contributed to 40% boost in accuracy.
- Implemented a LSTM Neural Network architecture, effectively capturing essential patterns in stock prices across various time spans.

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, SQL (Postgres), JavaScript, HTML/CSS, R, PowerBI, PowerQuery

**Frameworks:** Flask, FastAPI, Scikit-learn, Keras, PyTorch, Streamlit, LangChain, BigQuery, Node, Express, MongoDB

**Developer Tools:** Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Excel

**Libraries:** Pandas, NumPy, Matplotlib, Seaborn, pyfolio, backtrader, yfinance