

TRANG DO

Full-time Internship Availability: Summer 2025 & Credit Bearing - May to December 2025

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Portfolio: trangdoportfolio.netlify.app ◊ Github: TrangDo2104

EDUCATION

Nanyang Technological University

Bachelor of Chemical and Biomolecular Engineering with Second Major in Data Analyst

Aug 2022 - Dec 2025

Singapore

- GPA: 4.53/5.0
- Awards: ASEAN Undergraduate Scholarship (Full Ride Scholarship)
- Virtual Training and Development: Financial Engineering and Risk Management Specialization (Coursera)

WORK EXPERIENCES

Signify (Philips Lighting)

Business Analyst Intern

May 2024 - Present

Singapore

- **Supported R&D decisions with business-driven insights** by conducting market research using **Python**, **Selenium**, and **Octoparse** to **web scrape** and analyze **10,000+ customer reviews**.
- Transformed data into actionable insights through **sentiment analysis** and **competitor evaluation** using **OpenAI API** and **Claude API**, with results visualized in **Power BI**, directly impacting product development and presented findings to stakeholders to guide decision-making.
- **Improved reporting efficiency by 12%** for **200+ B2C deals/month** by automating processes via **AWS** and **Excel VBA**, integrating **forecasting models** for 3- to 6-month periods, and developing **10+ PowerBI dashboards** linked to **Salesforce**.

Chimp AI

Machine Learning Engineer Intern

Mar 2024 - Jun 2024

Sweden

- Created personalized roadmaps and career advice with **90% user satisfaction** by utilizing **GitHub Workflow**, **LangChain** for **SQL queries** and **PDF processing**, and **OpenAI GPT-4** for chatbot functionality.
- Decreased query response time by **20%** and maintained high performance across **10 different tables** with more than **1,000,000 rows** by managing **MySQL databases** on **GCP** with **Compute Engine** and **Virtual Machine**.
- Boosted user engagement by **25%**, from **4 to 5 average interactions per user session**, through **A/B testing** and launching the platform in an experimental phase to offer personalized job search experiences.

ACADEMIC PROJECTS

Crude Oil Price Prediction Using Deep Learning and Sentiment Analysis

Enhanced Forecasting Accuracy for Strategic Decision-Making in Oil Trading

GitHub

Project Link

- **Reduced prediction error by 5x over the baseline ARIMA model**, achieving an **accuracy of 65%**, by developing a **CNN and LSTM-based deep learning framework** for crude oil price forecasting.
- **Boosted accuracy by 1.3x**, achieving an **accuracy of 87%** in prediction through the **integration of sentiment analysis** from **OilPrice.com news** and **Twitter data** from Selenium web scraping, utilizing **CrudeBERT model** to capture market sentiment.

Chemical Reactor Design and Cost Optimization Project

Optimization of Plug Flow Reactor (PFR) Design for Enhanced Conversion Efficiency

Streamlit

Simulation Link

- **Increased conversion efficiency by 18%** and **reduced overall design costs by 22%** by developing a **Python-based framework** that utilized **Bayesian Optimization** along with thermodynamics and reaction kinetics models to optimize **Plug Flow Reactor (PFR)** design for isopropyl palmitate synthesis, leading to more efficient use of materials and energy.
- **Reduced OPEX by 20%** by optimizing reactor design, expanding heat exchanger surface area, and eliminating a distillation column, with a **CAPEX of \$25.7M (€23.7M)** and **OPEX of \$79.8M (€73.6M)**.

LEADERSHIP/EXTRACURRICULAR ACTIVITIES

NTU Vietnamese Freshmen Orientation Camp

Chairperson

Jul 2022 - Aug 2023

Singapore

- Improved orientation for **40+ Vietnamese freshmen** by partnering with the three largest high schools in Vietnam and study abroad consulting companies for three months, demonstrating effective stakeholder engagement. Organized a Freshmen Orientation Camp for **130 participants**, receiving positive feedback with a **4.5/5 rating** from attendants through post-event survey.
- Secured **\$3,300** (covering **67%** of expenses) in sponsorships by leading a team of 40, managing logistics and finances, and creating detailed financial statements.

SKILLS

- **Technological Skills:** Python, Excel VBA, PowerBI, Power Automate, SQL, Selenium, Octoparse, TensorFlow, PyTorch
- **Business Skills:** Oil Trading, Financial Engineering, Risk Management