

Dang Trung Hieu

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EDUCATION

Nanyang Technological University

2021 – 2025

Bachelor's Degree – Environmental Engineering – Honours Merit

- MH2814 Probability and Statistics: A+
- MH1812 Discrete Mathematics: A

Certificates

- MIT IDSS Data Science & Machine Learning Course Online Jan 2025 – March 2025
- Google Advanced Data Analytics Professional Certificate Jun 2024

WORK EXPERIENCE

Singapore – MIT Alliance for Research and Technology Centre

Singapore

The only research centre outside the U.S. of MIT, ranked #1 university in the QS Rankings

Machine Learning Engineer Intern

May 2024 – Aug 2024

- Built a Computer Vision GAN model with PyTorch, with a maximum downscaling (deblurring) factor of 64
- Extracted and preprocessed 4 months of NetCDF4 data for model training
- Attained a mean absolute error (MAE) of 0.45°C, surpassing the 2°C MAE target
- Offered a part-time work opportunity

Data Analyst Intern

Jan 2024 – May 2024

- Preprocessed large datasets collected over 8 months with Python Pandas
- Performed statistical analysis, created 15 visualizations, successful publication to the Urban Climate Journal
- Offered an extended summer internship opportunity

Google Summer of Code 2023: http4s Ember WebSocket Client

Remote

Scala Center

Student Developer

May 2023 – Aug 2023

- Created a full WebSocket implementation for http4s Ember—one of the most popular Scala web frameworks
- Worked independently, successfully completed the project in 3 months
- Gave a project presentation to more than 100 attendees at the Northeast Scala Symposium

LEADERSHIP ROLES

NTU MLDA Club Project, LLM Team Lead

Aug 2024 – Present

- Develop an AI system to automate exam grading, potentially reducing grading time by up to 80%
- Led a team of 5 in designing an exam grading workflow based on rubrics, achieving 80% accuracy

ADDITIONAL PROJECTS

Personal Blog: 6-year Spotify data Analysis

Oct 2024

- Built the portfolio website with Front-end ReactJS Application
- Collected and preprocessed 6-year personal Spotify Data
- Discovered underlying listening activity trends and created 10 unique visualizations with Plotly JavaScript

Visualizing IMDB Ratings of movie series over time

Charts displaying episode ratings across all seasons for 270000 movie series on IMDB

Tableau Dashboard

Jul 2024

- Conducted data preprocessing with Pandas, with largest dataset containing 11 million rows
- Performed data modelling to relate data tables and launched a Tableau Dashboard

imdb-react-graphql: Full-end web application built with PostgreSQL, Flask, and ReactJS

2023

- Contributed to the GraphQL backend built with Flask and the PostgreSQL database
- Developed the Frontend Application with React and created visual plots with Highcharts JS

SKILLS

- Programming Languages: Python, SQL, JavaScript, HTML, Scala, Haskell
- Frameworks and Tools: Linux, Git, Bash, React, Node.js, Flask, FastAPI, Spark, Hadoop, Tableau, PowerBI