

# LIM JIN BIN

## AI & DATA ENGINEERING STUDENT



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### ABOUT ME

I like turning ideas into something measurable whether that's a clearer process, a better model, or a smarter way to make decisions. I enjoy learning by building and I'm looking to bring that practical mindset into any problem I face.

### EDUCATION

**2022 - 2026**  
Singapore

#### NANYANG POLYTECHNIC | DIPLOMA OF AI & DATA ENGINEERING

- CGPA: 3.96/4.0 (5 Sem) | 5-Time Director's List Recipient
- Core Modules: Data Processing, AI, IOT, Engineering

### PROJECTS

#### ■ PLANTIDOC

*Dec 2024*

- Built and deployed an interactive webapp using HTML, CSS, JavaScript and Flask to classify plant diseases.
- Utilized YOLOv11 for object segmentation to correctly identify multiple leaves and detect potential diseases.
- Leverages an Adaptive Minimal Ensemble to keep computational cost low while providing accurate predictions.

#### ■ ALDITALK

*Dec 2024*

- A full-stack, speech-to-speech translation web app to bridge communication between caregivers and the elderly featuring the 6 main languages in Singapore: English, Mandarin, Malay, Tamil, Cantonese and Hokkien.
- Extracted Hokkien Speech data from Hokkien dramas on Youtube using Python and Azure AI OCR as well as getting Hokkien recording from our teachers/family.
- Built a Hokkien TTS pipeline by romanizing input text into Peh-ōe-jī (POJ) using GPT4o and synthesizing audio with Meta MMS-TTS.

#### ■ OPTIFLOW

*Feb 2025*

- A Raspberry Pi-based crowd control system using Python and OpenCV (YOLOv8) for real-time person detection.
- Implemented multithreading to process multiple sensor streams in parallel, reducing detection latency and improving system responsiveness.
- Flask integration to send live data to a remote server to update queue count dashboard.

#### ■ DATA ANALYSIS OF SINGAPORE'S CO2 EMISSION

*Aug 2024*

- Applied CRISP-DM to structure the analysis and deliver data-driven recommendations to reduce carbon emissions in Singapore.
- Sourced and consolidated emissions, population, and GDP datasets from EDGAR, Our World in Data, and the World Bank into an analysis-ready dataset.
- Built a repeatable data-prep workflow to ensure reliable inputs for Power BI reporting.

#### ■ SIGMAPROMPTER

*Apr 2025*

- An interactive AI-powered image guessing game created for NYP's open house events to test player's prompt skills by making them try to reverse engineer the prompt.
- Integrated a text-to-image generation pipeline and scoring using semantic similarity between player guesses and target prompts.

CERTIFICATES

AI Ethics & Governance   Singapore Computer Society	Nov 2025
AI 900: Azure AI Fundamentals   Microsoft	Jan 2025
Associate AI Engineer   AI Singapore	Sep 2025
Fundamentals Of Deep Learning   NVIDIA	Jan 2025

EMPLOYMENT HISTORY

Project Development Analyst (Intern) @ Johnson Controls *Sep 2025 - Feb 2026 (6 Mths)*

- Supported bid management and regional operations through automation, KPI tracking, and process optimisation across SEA and APAC teams.

Storekeeper @ DB Schenker *Oct 2024*

- Sorted and managed 400+ packages daily, demonstrating high attention to detail and operational reliability to support smooth warehouse operations.

Cashier @ NTUC, Downtown East *Feb 2023*

Cashier @ Don Don Donki, Orchard Gateway *sep 2022*

- Assisted customers with inquiries and delivered efficient service, strengthening my communication and problem-solving skills in a fast-paced environment.
- Provided efficient checkout while accurately managing payments and vouchers in a high foot-traffic area, demonstrating accuracy under pressure and strong process discipline

CCA/EVENTS

Track & Field - NYP *2023-2024*

- Represented NYP in POLITE 2024
- Participated in Pesta Sukan (2023&2024)

DADE Diploma Club (Vice President) - NYP SEG *May 2025*

- Involved in and planned school events like the course bonding day, Director’s list ceremony, Open House and EAE.
- Joined external events like the AI Student Developer Conference 2025 where we got to showcase our very own AI projects.

Maritime Hackathon 2025 - NUS *Jan 2025*

- Cleaned and merged ship arrival/departure datasets, standardizing timestamps and vessel identifiers for analysis.

SKILLS AND TECHNOLOGIES

AI & Machine Learning: Python, ML/DL, NLP, Computer Vision, Azure AI, Hugging Face

Data Engineering: Pandas, PySpark, PowerBI, MySQL, Seaborn, Matplotlib, NumPy

IOT: C++, M5stack, Raspberry Pi, Arduino

Web Development: HTML, CSS, JS, Flask

Dev Ops: Kubernetes, Docker