

Lo Zhi Hao

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Aspiring Data Scientist, Writer, Investor; 1+ years of experience in Predictive Analytics and Machine Learning

EDUCATION

National University of Singapore

BSc. in Business Analytics

CAP: 4.33 / 5.0

Singapore, Singapore
Aug, 2021 – Dec, 2025 (Expected)

- **Academics:** Second Major in Economics & Specialized in Machine Learning-based Analytics
- **Awards:** Certificate of Distinction in Analytics Techniques Knowledge Area, Certificate of Distinction in Financial Analytics Specialisation & Machine Learning-based Analytics Specialisation, ASEAN Undergraduate Scholarship

WORK EXPERIENCE

Data Scientist Intern

Wholly Greens Pte. Ltd.

Singapore, Singapore
Jan, 2025 – May, 2025 (Expected)

- Developing object identification and classification models using YOLO model and CVAT platform in order to create a robust data pipeline to accurately identify objects retrieved by users from vending machines.
- Conducting time series analysis to perform demand forecasting for over 40 SKUs across 400+ vending machine locations, reducing waste and improving profit margins.
- Delivering PowerBI dashboard to visualize forecasted demand for each vending machine and SKU, enabling accurate daily re-stocking decisions and optimizing inventory management.

Data Analyst Intern

Azure Tide Holdings Pte. Ltd.

Singapore, Singapore
Aug, 2024 – Jan, 2025

- Utilized Python to integrate with 5+ APIs (CoinMarketCap, CoinGecko, Debank, Binance, Blockchain.com) to collect and process data for over 20+ cryptocurrencies and wallets
- Automated daily updates of cryptocurrency prices and conducted due diligence on counterparties' financial situations, reducing manual workload by 90% per day and improving data accuracy
- Streamlined the distribution of financial and market updates to 10+ stakeholders via Sheety, Slack, and Telegram APIs, reducing the update time by 80% and ensuring real-time communication

Data Analytics Intern

Continental AG

Singapore, Singapore
Jan, 2024 – Jun, 2024

- Designed and implemented a PowerBI dashboard to compare and filter similar projects, aiding project managers in identifying past project details and costs
- Proposed and executed a redesign of the data relationships between 20+ tables in the project details management dashboard, streamlining data flows and improving efficiency
- Employed PowerQuery for data cleaning and manipulation, and leveraged DAX measures to calculate key metrics (mean, median, standard deviation) for real-time project cost management

PROJECTS

Bon-AIPetit - AI Recipe & Meal Plan Recommender

Gamuda AI Academy

Jan, 2025 – Mar, 2025 (Expected)

- Developed web application using Vue.js and Vuetify for the frontend, and FastAPI, Google Cloud Services, PostgreSQL, and MongoDB for the backend.
- Utilized Vertex AI, MongoDB, and Gemini Pro to implement a RAG (Retrieval-Augmented Generation) architecture for accurate and personalized recipe recommendations.
- Implemented object detection and OCR models to identify ingredients from pictures and receipts, enabling precise recipe recommendations based on available ingredients.
- Integrated meal planning features considering user preferences and dietary restrictions, enhancing user experience and personalization.

Capstone Project: Cargo Permit Data Extraction Automation

The Coca-Cola Company

Aug, 2024 – Nov, 2024

- Automated process of cargo permit data extraction using Computer Vision, enhancing processing efficiency and accuracy
- Engineered synthetic data generation with cv2 and conducted data annotation via Roboflow, increasing training data by 80% and enhancing model training quality through improved dataset reliability
- Fine-tuned YOLOv8 model for bounding box identification and implemented advanced OCR solutions (Pytesseract, Doctr, PaddleOCR), resulting in 99% precision in text extraction and streamlined data management for over 700 cargo permits

LEADERSHIP EXPERIENCE

NUS Business Analytics Consulting Team

Vice-President (Internal) & Senior Analyst

Aug, 2023 – Aug, 2024

- Led a team of 4 in delivering a data science project to accurately forecast crop prices 1-3 days ahead for Sarisuki, a startup in the Philippines. Performed data analysis, feature engineering, and developed models using ARIMA, SARIMA, VARIMA, LSTM, and Transformers for 19 crops, with backtesting via MAE and MAPE metrics
- Managed a publicity team of 4 to oversee social media platforms (Instagram, LinkedIn, Telegram), posting events and updates for over 300 followers on Instagram and LinkedIn, and 80 members on Telegram

SKILLS

- **Tools & Skills:** Python (Pandas, Numpy, Scikit-Learn, Pytorch, Airflow, Selenium, Streamlit, Bs4), R, SQL (MySQL, PostgreSQL), VueJs, ReactJs, PowerBI (Power Query, DAX), UiPath, Microsoft Excel, GCP (Cloud-SQL, Vertex AI), AWS (Lambda)