Lo Zhi Hao

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

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EDUCATION

National University of Singapore   Singapore, Singapore
BSc. in Business Analytics   CAP: 4.33 / 5.0   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, Financial Analytics Specialisation & Machine-Learning Analytics Specialisation, ASEAN Undergraduate Scholarship

WORK EXPERIENCE

Wholly Greens Pte Ltd.   Singapore, Singapore
AI & Machine Learning Intern   Jan, 2025 − May, 2025 (Expected)
- Developed object identification and classification model using YOLO model and CVAT platform, creating a robust data pipeline to accurately identify objects retrieved by users from vending machines.
- Conducted time series analysis to perform demand forecasting for over 40 SKUs across 400+ vending machine locations, reducing waste and improving profit margins.
- Delivered a PowerBI dashboard to visualize forecasted demand for each vending machine and SKU, enabling accurate daily restocking decisions and optimizing inventory management.

Azure Tide Holdings Pte. Ltd.   Singapore, Singapore
Data Analyst Intern   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

Jurong Town Corporation (JTC)   Singapore, Singapore
Data Science Intern   May, 2023 − Aug, 2023
- Conducted data cleansing, preprocessing, feature engineering, and developed machine learning models to accurately predict the occupancy rate of sub-segments within the industrial property sector
- Improved Mean Absolute Error of model predictions to 0.21% quarterly hence reducing the number of occupancy rate surveys needed by the company from 4 to 2 times per year
- Identified and visualized key factors that significantly contribute to higher premiums observed in both food and generic industrial space

PROJECTS

Bon-AIPetit - AI Recipe & Meal Plan Recommender   Jan, 2025 − Mar, 2025 (Expected)
Gamuda AI Academy
- 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   Aug, 2024 − Nov, 2024
The Coca-Cola Company
- 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-tunedYOLOv8 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   Aug, 2023 − Aug, 2024
Vice-President (Internal) & Senior Analyst
- 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, Google Cloud PLatform, Vertex AI