Alden Ng

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I have a strong interest in technology and the practical applications in the financial context

EDUCATION

SINGAPORE MANAGEMENT UNIVERSITY (SMU) *August 2021 — May 2025*

Bachelor' Degree in Information Systems (Business Analytics), 2nd Major in Quant Finance

- Dean's List (AY2022-23)
- Coursework: Investment Statistics, Quantitative Finance, Object-Oriented Programming, Data Management, Quantitative Trading Strategies, Machine Learning & Applications
- Teaching Assistant: Computational Thinking, Financial Accounting, Business Process Analysis & Solutioning

PROFESSIONAL EXPERIENCE

Research Assistant (Quantum Computing in Finance) *February 2024 - Present*

Singapore Management University, Singapore

- Currently assisting in research by using quantum computing algorithms on financial data to assess the potential for quantum advantage in predicting black swan events in the market
- Implement multi-factor model for multiple time series and compare quantum estimates to classical counterparts

Business Development Analyst *January 2022 - June 2022*

OKX, Singapore

- Managed over 30 global institutional clients (APAC & ex-China) with high monthly trading volume
- Coordinated the lead generation and onboarding of Crypto-friendly VCs and Crypto exchanges globally

Data Analyst and Account Coordinator *February 2021 — Dec 2021*

Grab Holdings Inc.

- Utilized **Azure Data Studio** and **SQL** to query data for the account management team
- Generated dashboards on **PowerBI** to visualise merchant performance and assist merchants in making business decisions

TECHNICAL SKILLS & Certifications

- **Programming Languages**: Java, C++, Python, JavaScript, SQL, HTML, PHP, CSS, Typescript
- **Framework & Tools**: VueJS, Flask, React.js, Docker, MySQL, Agile, RESTful APIs, Tableau, PowerBI, Microsoft Office
- **Certifications**: Bloomberg Market Concepts, Java Foundations

PROJECTS

Markov Switching Algorithmic Trading Bot | https://github.com/alldenla/Regime-Shift-Algorithmic-Trading-Bot

Adaptive trading strategy based on market environments identified using Markov Switching Autoregression Model coupled with classification machine learning models to predict market shifts in the financial markets

- Analysed and backtested a combination of technical indicators to select the best combination of trading signals for different market environments to maximise market returns
- Trained and fine-tuned an XGBoost model that can predict market shifts with 99% accuracy
- Formulated regime-specific trading strategies that switches based on the regime

Intelliproperty | https://github.com/justinachuayi/intelliproperty

Final year project – Multi-faceted solution to enhancing value creation and user experience for property seekers

- Property Valuation Tool: Utilise LSTM neural networks for valuation of property based on macro and microeconomic indicators. Able to accurately predict property value with a RMSE of 34,000.
- Whatsapp Chatbot: Automating the flow of user conversations using LLM and integrating it with a CRM system
- Property News Webscraping: Centralised information access through webscraping and using LLM to analyse and summarise news

Stock Portfolio Tracker | https://github.com/is442oop/portfolio-analyzer-backend

Web application to track and visualise portfolio holdings

- Java, Spring Boot, Hibernate, Apache Maven, Typescript, NextJS, Supabase, Postgres, Docker

Citi Singapore HackOverflow 2023 | https://github.com/julianooii/Citi-Hack-Finbros

Enhancing efficiency of information retrieval for middle and back-office functions by centralising data in a knowledge graph

- Designed and Implemented an AI powered chatbot, powered by NLP to process large amounts of PDF data.
- ReactJS, CSS, Flask, Neo4j, Docker, Spacy, GPT3.5 Turbo

Other Projects

- Option Pricing Calculator – Calculated using: *Black Scholes, Binary Tree, Monte Carlo* | https://github.com/yashchellani/qf205
- Fake Job Posting – *Trained Logistic Regression and Random Forest model to identify* | https://github.com/sophiaee/MLA_proj