

Jeng Yang (Jayden) Kong

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SUMMARY

Software Engineer with 3.5 years of experience and a Master's in Data Science, aspiring to transition into AI Engineering. Experienced in fine-tuning and deploying large language models (LLMs) and integrating AI solutions into production systems. Strong foundation in software architecture and a passion for building scalable, intelligent applications that solve real-world problems.

EDUCATION

University of Malaya <i>Master of Data Science (CGPA: 4.0)</i>	Jul 2023 – Jul 2025
Monash University <i>Bachelor of Computer Science(Advanced)</i>	Jul 2018 – Jul 2021

PROJECTS

WalletAI: AI-Powered Personal Financial Assistant Web App Live Demo Source Code <i>Side Project</i> <i>Next.js, TypeScript, Supabase, Gemini</i>	Aug 2025 – Jan 2026
<ul style="list-style-type: none">Built a full-stack AI-powered personal finance tracking web application that enables users to query their financial data using natural language, featuring conversational AI insights and dynamic chart generation.Implemented Retrieval-Augmented Generation (RAG) by allowing users to upload financial documents and storing them in Supabase vector database with gemini-embedding-001 embeddings, enabling accurate information retrieval from uploaded documents with 95%+ query accuracy.Integrated Gemini 2.5 Flash API with function calling capabilities, allowing the AI to dynamically execute database queries, calculate financial metrics, and trigger chart generation based on user intent.Designed a scalable PostgreSQL database schema with multi-currency support, budget tracking, and real-time progress monitoring, deployed on Vercel with serverless architecture.	
Financial Text Sentiment Analysis Using LLM for Stock Market Prediction Source Code <i>Master's Thesis</i> <i>LLM fine-tuning, Stock Prediction</i>	Nov 2024 – July 2025
<ul style="list-style-type: none">Conducted research on applying Large Language Models to financial news sentiment analysis; combined domain-specific sentiment scores with historical OHLCV stock data to investigate whether incorporating sentiment improves next-day stock price prediction accuracy.Fine-tuned Large Language Models (Llama 3 8B, Gemma 7B) using QLoRA on the Financial PhraseBank dataset for domain-adapted sentiment classification, achieving 99.3% test accuracy with Llama 3.Collected and preprocessed over 160k financial news articles via Polygon.io API and historical OHLCV data for the top 20 US companies by market cap (via yFinance), curating 35k high-quality labeled samples; engineered time-series sentiment features (3-day, 7-day, 10-day rolling averages) to capture evolving market psychology and integrate with stock price sequences.Performed hyperparameter tuning (learning rate, batch size, epochs) for LLM fine-tuning using Optuna; developed and evaluated predictive models (LSTM, XGBoost, Random Forest), demonstrating that LSTM leveraging 7-day sentiment features delivered 10.9% RMSE reduction and 4.4% R^2 improvement on TSLA stock predictions compared to price-only baselines.	

PROFESSIONAL EXPERIENCE

Software Engineer <i>Daikin Holdings Singapore</i>	Jul 2023 – Present <i>Singapore</i>
<ul style="list-style-type: none">Led a team of 3 engineers in developing a Flutter-based application to visualize building HVAC power consumption data, enabling identification of energy wastage and driving measurable improvements in energy efficiency for commercial facilities.Collaborated closely with business teams to translate strategic objectives into scalable, data-driven software solutions, resulting in a 40% increase in revenue through enhanced feature adoption and user value delivery.Optimized end-to-end data pipelines, reducing processing time by 25% and significantly improving data loading performance for real-time analytics and visualization dashboards.	

- Developed Python scripts to generate 24 months of realistic HVAC operational data in SQLite format, reducing data creation and setup time by 80% and enabling the QC team to perform full end-to-end, edge-case, and quality testing without relying on live production data.

iOS Engineer

Jul 2021 – Jul 2022

FPLE Group

Kuala Lumpur, Malaysia

- Developed and maintained a high-performance eCommerce iOS application using Swift, UIKit, and MVVM architecture, delivering core features including secure user authentication, product catalog browsing, shopping cart management, and seamless order processing.
- Leveraged Combine for reactive programming and asynchronous data handling, enabling efficient REST API integration and real-time updates across views and view models.
- Applied SOLID principles rigorously across the codebase, resulting in faster feature onboarding for new developers, enhanced modularity, and easier scalability for future expansions.
- Designed and implemented reusable UI components and custom views adhering to Apple Human Interface Guidelines, improving cross-device consistency (iPhone & iPad).
- Built reusable UI components and custom views following Apple Human Interface Guidelines for optimized user experience across iPhone and iPad.

TECHNICAL SKILLS

Language: Python, SQL, R, Dart, JavaScript, Swift.

AI & ML: LLMs (Fine-tuning, RAG), NLP (BERT, Transformers), TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy.

App Development: Flutter, iOS (UIKit/SwiftUI), MVVM Architecture.

Tools & Platforms: Git, Jupyter Notebook, VS Code, Xcode, Supabase.