KIERAN HO CHENG HONG

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EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE (NUS)　　　　　　　　　　　　　　　Aug 2023 - Present
Bachelor of Science in Business Analytics (BZA), Honors
Current GPA: 4.41/5.00, Specialising in Financial Analytics and Machine Learning
Background / Transfer: ***Bachelor of Engineering in Computer Engineering (CE), Honors***
Relevant Coursework: Programming Methodology (A), OOP (A-), Mining Web Data for Analytics (BA) (A-), DSA (A+)

WORK EXPERIENCE

SYNAPXE PTE LTD　　　　　　　　　　　　　　　　　　　　　　　　　　Jun 2025 - Present
AI & Cloud Engineering Intern
- Supporting technical development deliverables on Health Empowerment thru Advanced Learning & Intelligent eXchange (HEALIX) using Tableau, Informatica, AWS Sagemaker and DataBricks

NATIONAL UNIVERSITY OF SINGAPORE　　　　　　　　　　　　　　　　　Aug 2024 - Dec 2024
Teaching Assistant (CS1010 Programming Methodology)
- Taught programming fundamentals in C, 4.7/5.0 for student feedback

PROJECT EXPERIENCE

AMAZON ELECTRONICS RECOMMENDATION MODEL　　　　　　　　　　　Feb 2025 - Apr 2025
Analysis and Prediction of Electronic Product Reviews
- Recommendation system using Amazon Reviews 2023 dataset for personalised product recommendations
- Introduced sentiment-analysis pipeline, improving NDCG (normalized discounted cumulative gain) by ~31.4% from 0.5356 to 0.7041 and MAP (mean average precision) by ~53.7% from 0.4535 to 0.6973

SINGLIFE FINANCIAL AGENT RECOMMENDATION MODEL　　　　　　　　Jan 2025 - Feb 2025
Predictive Model for Client-Agent Pairing
- Machine learning model optimising client-agent pairing using 60,000+ data points
- Built using PyTorch, NumPy, and pandas, integrating batch normalisation, custom focal loss, and Exponential LR scheduling, achieving Precision@1 = 10.34%, Precision@3 = 16.01%, outperforming naive baseline by 800×

TRAVLA　　　　　　　　　　　　　　　　　　　　　　　　　　　　　May 2024 - Apr 2025
Mobile & Web-App Travel Planning Applications
- Developed iOS & web-app travel planning apps using React Native Expo, Firebase, and Supabase

AUTONOMOUS ROBOT　　　　　　　　　　　　　　　　　　　　　　Oct 2023 - Nov 2023
Custom Maze Navigating Robot
- Autonomous robot built with base mBot kit with custom-built colour and infrared sensors from scratch
- Uses proportional–integral–derivative controller for turning and maintaining position for efficient turning with minimal overshoot, achieving no collisions and fastest completion time

HANDWRITTEN DIGIT CLASSIFIER　　　　　　　　　　　　　　　　　　　　Nov 2023
K-Nearest Neighbours (KNN) Classification Model
- Simple KNN handwritten digit classifier in C, trained and tested with MNIST dataset, 96.56% accuracy

COMPETITIONS

- National AI Student Challenge 2025 - AWS LLM League　　　　　　　　Mar 2025 - Apr 2025
- NUS Datathon Advanced Category 2025　　　　　　　　　　　　　　　　　　Feb 2025
- NUS Hack4Good 2025　　　　　　　　　　　　　　　　　　　　　　　　　Jan 2025
- NUS LifeHack 2024　　　　　　　　　　　　　　　　　　　　　　　　　June 2024
- NUS BitHacks 2024　　　　　　　　　　　　　　　　　　　　　　　　　　Feb 2024

SKILLS

Programming Languages	Java, Python, R, SQL, HTML, CSS, JavaScript, TypeScript, C, C++
Databases & Cloud	MySQL, Supabase, Firebase, AWS, Databricks
Frameworks / Libraries / Tools	PyTorch, NumPy, pandas, Next.js, Expo, Tableau, Git/GitHub, Vue