KIERAN HO CHENG HONG

Penultimate Year | Availability: May 2026 - Dec 2026

+65 8408 8818 | snatzehua@gmail.com | linkedin.com/in/snatzehua | snatzehua.com

EDUCATION

National University of Singapore (NUS)

Aug 2023 - Present

Degree: Bachelor of Science in Business Analytics, Honours

- Current GPA: 4.41/5.00, Specialising in Financial Analytics and Machine Learning
- Transferred from: Bachelor of Engineering in Computer Engineering, Honours
- Relevant Coursework: Data Structures & Algorithms (A+) | OOP (A-) | Data Mining for Business Insights (A-)

Raffles Institution / Raffles Junior College (Integrated Programme)

Jan 2015 - Dec 2020

WORK EXPERIENCE

Al & Cloud Engineering Intern | Synapxe Pte Ltd

Jun 2025 - Present

- Implemented real-time cloud pipeline for decryption & transfer of incoming files, providing an additional, observable layer of end-to-end security in Singapore's national healthcare analytics platform (<u>HEALIX</u>)
- Implemented vertical scaling within EC2 decryption instance to minimise overhead and costs
- Identified performance issue with AWS Lambda script, resulting in cloud compute cost-savings of up to 50%

Programming Methodology TA | NUS

Aug 2024 - Dec 2024

• Taught programming fundamentals in C to class of 11 students through weekly laboratory sessions and exercises, obtained 4.7/5.0 for student feedback, nominated for Teaching Excellence Award

Military Pilot | RSAF

Aug 2021 - Dec 2021

- Underwent flight school training in Perth, learning flight fundamentals through flying CT4B training aircraft
- Performed administrative duties including candidate selection & onboarding for Airforce Recruitment Centre

PROJECTS

Sentiment-Driven Trading Strategy | Quantitative Strategy

Jul 2025 - Present

- Built a <u>sentiment-driven market timing strategy</u> using GDELT news tone as a proxy for investor confidence, using volatility spikes and sentiment-price deviation (pseudo pairs-trading) as signals to time trades
- Outperformed the S&P 500 by ~2.5% annually from 2015 2025 in recent backtests

Portfolio Website | Fullstack Website

Jan 2025 - Present

- Designed and built <u>personal portfolio website</u> (Next.js + Google Apps Script) using custom components
- Created an auto-publishing script to reduce work required to maintain and update website

JurAl, by TechPB | Agentic Web Application

Aug 2025

- Developed a fullstack <u>multi-agentic AI compliance pipeline in team of 5</u> simulating a judge-jury model (FastAPI + Next.js + Google ADK), <u>automating compliance reviews</u> while <u>preventing single-model biases</u>
- Leveraged dual Retrieval-Augmented-Generation (RAG) to retrieve similar cases and region-specific legislation, providing historical and regional context to compliance analysis without heavily impacting performance

Amazon Electronic Product Recommendation Model | Machine Learning Model

Feb 2025 - Apr 2025

Collaborated in team of 5 to improve prediction of products customers are likely to buy; integrated sentiment
analysis pipeline for review data to drive improvements of 31% and 54% in NDCG and MAP, raising
accuracy of predictions from 50% to 70%

Travla / Travlah! | Software Development

May 2024 - Apr 2025

- Prototyped <u>iOS travel planner</u> (React Native + Xcode + Google APIs) featuring an itinerary planner, map view with routing, cost breakdown and packing list to condense travel planning into one app
- Added web application (Vue.js + Google APIs) with extended functionality for cross-platform support

Historical Analysis of Beijing Housing Market | Exploratory Data Analytics

Aug 2024 - Nov 2024

 Leveraged SQL with geospatial Tableau dashboards for <u>exploratory analysis in Beijing housing market</u>, identifying several areas with high-return housing configurations in central and underdeveloped districts

Handwritten Digit Classifier | Machine Learning

Nov 2023

- Implemented K-nearest neighbours machine-learning algorithm in C to scan and classify handwritten digits
- Obtained 96.56% accuracy when trained and tested on the MNIST database

SKILLS & INTERESTS

Programming Languages
Databases & Cloud
Frameworks / Libraries / Tools
Languages
Personal Interests

Java | Python | R | SQL | HTML | CSS | JavaScript | TypeScript | C | C++ MySQL | Supabase | Firebase | AWS | Databricks | Informatica PyTorch | NumPy | pandas | React | Next.js | Expo | Tableau | Git/GitHub | Vue Fluent English, Chinese | Conversational Indonesian | Basic Japanese Rugby | Dragon Boating | Blacksmithing | Solo Travel | Strategy Games