Yinghao (Peter) Guan

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Summary

A Computer Science student with hands-on experience in data analysis, AI applications, and full-stack development. Delivered 8+ academic and independent projects, including an AI-powered language learning game and a behavioural economics study using PLS-SEM. Adept in Python, Java, and C#, eager to contribute analytical and problem-solving skills to a software or data-focused internship.

Education

Santa Monica College, Computer Science   Sept 2025 – Present

University of Edinburgh, BEng in Computer Science   Sept 2022 – July 2024
Relevant Coursework: Software Engineering, Data Structure, Reasoning and Agents

Projects and Activities

UCLA HCI Research Collaboration   Jul 2025 – Aug 2025

- Collaborated with UCLA HCI faculty on an exploratory research project, delivering presentations and preliminary findings.
- Preparing a peer-reviewed paper for future submission.

Independent Research: Behavioural Modelling of Excessive Trading in Tech Stocks   Jan 2025 – Apr 2025

- Collected and integrated US tech sector stock data (META, GOOGL, MSFT) with sentiment indicators using Python (pandas, yfinance).
- Modelled the impact of DeepSeek R1 LLM launch on trading behaviour via PLS-SEM, revealing significant FoMO and overconfidence effects.
- Produced visualisations in Matplotlib to illustrate behavioural bias patterns across event windows.

Hackathon: AI-Powered Language Learning Game   Feb 2024

- Co-developed a 2D escape-room style game in Unity (C#) to teach new languages through interactive puzzles.
- Integrated Google Vertex AI (Gemini) with Python to dynamically generate in-game dialogue and challenges.
- Delivered a functional prototype within 48 hours, earning positive jury feedback.

Data Analysis: Performance Trends in Ultra Marathon Runners   Sep 2023 – Dec 2023

- Processed and analysed a Kaggle dataset with 200k+ race records using Python (pandas, seaborn, sklearn, scipy).
- Applied K-means clustering to segment runners by performance and demographics.
- Visualised trends across race categories, highlighting club-affiliated and age-related patterns.

Additional Projects

- **Library Kiosk FAQ System** – Java, MVC, UML | Designed and implemented a hierarchical FAQ interface for campus kiosks.
- **Android Chat Application** – Java, XML, Firebase | Built a real-time messaging app with cloud-based storage.
- **Hackathon Participation** – Joined Encode x Ethena, AdaHack, and Encode ETH London; developed Web3 dApps in Solidity, DeFi tools, and real-time NLP applications.

Additional Information

Computer Skills: Python, Java, R, C, C#, Haskell, Unity2D, LaTeX, Git

Languages: Chinese, English