Jia-Jie Chen

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London, UK

Education

- **King's College London** *September 2024 - September 2025*
  MSc in Computational Finance London, UK
  - Recipient of the prestigious **Sam Goodenough Scholarship** for academic excellence.
  - Awarded **Upper Second-Class Honours (2:1)** with an overall average of **68%**.
  - Focused on **quantitative finance, derivatives pricing, and high-frequency trading**.
- **University of Southampton** *October 2021 - June 2024*
  BSc (Hons) in Computer Science Southampton, UK
  - Awarded **Upper Second-Class Honours (2:1)** with an overall **average of 68%.**
  - Relevant coursework: **Machine Learning, Object-Oriented Programming (OOP) and Software Engineering Principles**.
  - Final-year project: Conducted an in-depth **analysis of arbitrage opportunities within cryptocurrencies** and developed a model to **identify price inefficiencies** across exchanges.

Experience

- **Trading Labs []** *April 2023*
  Software Intern London, UK
  - Developed **production-ready code** to continuously monitor the uptime of the news processing system.
  - Designed and implemented **price charts with Exponential Moving Average (EMA) and Linear Regression indicators** to support trading decisions.

Projects

- **MSc Dissertation – Market Liquidity in Traditional Assets vs Cryptocurrencies** *June 2025 - September 2025*
  *Tools: **Python, Pandas, Statistical Testing, Binance API, Bloomberg Data***
  - Analyzed execution quality across BTC (Binance) and SPY (Bloomberg) using **bid-ask spread**, **slippage simulation**, and the **Amihud Illiquidity Ratio**.
  - Normalized metrics across overlapping trading hours and validated results using **Welch's t-tests** ($p < 0.001$ for all metrics).
  - Found crypto execution had **43x more slippage** and **52x higher price impact**, highlighting liquidity fragmentation and institutional scalability risks in BTC markets.
- **FinBERT Sentiment Analysis for Cryptocurrency Markets** *October 2025*
  *Tools: **Python, HuggingFace, FinBERT, Pandas***
  - Experimented with **FinBERT**, a finance-domain BERT model, to classify news and social media sentiment related to major cryptocurrencies (BTC, ETH).
- **Binance L2 Order Book Logger - Python** *August 2025*
  *Tools: **Python, AsyncIO, WebSockets, Pandas, Parquet, Azure VM*** []
  - Built a high-frequency data pipeline to **capture Binance L2 order book depth** at 1-second intervals and store in CSV formats, enabling analysis of market microstructure
  - Deployed the system on an Azure Linux VM with **automated daily logging**, simulating production-grade data engineering workflows.

Skills

- **Programming Languages: Python, C++, Java, C#**
- **Database Systems: MongoDB, SQL**
- **Data Science & Machine Learning: Pandas, NumPy, Scikit-Learn**
- **Financial Computing: Stochastic Calculus, Monte Carlo Simulations**
- **Other Tools & Technologies: Data Structures & Algorithms, Asynchronous Programming, Web Scraping**

Additional Information

Languages: English (Native), Mandarin (Fluent), Cantonese (Fluent)
Interests: Algorithmic Trading, Machine Learning, Chess, Poker & Badminton