KING'S College LONDON

彭鹏一

Pengyi Peng

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Education

King's College London 2022.09 – 2024.11
MSc Complex Systems Modelling, Department of Mathematics

University of Reading 2018.09 – 2022.06
BSc Mathematics and Applied Mathematics

- First-Class Honours, Top 10% in the programme.

Competitions

WorldQuant International Quant Championship 2024 Global 232 / 34,142, Top 0.6%, UK 5th

- Collected, organized, modelled and analysed data on the WorldQuant platform, including A-share and US equity price-volume data, fundamentals, news sentiment, volatility and options data, and alternative datasets, to research long-short Alpha factors.
- Applied cross-sectional and time-series tools, conditional combinations and risk-control techniques. During IQC 2024, developed 127 effective Alpha factors and added them to the factor library, continuously optimizing factor performance using evaluation metrics including Sharpe ratio and return.
- Advanced to the UK final and visited the London offices of WorldQuant and Millennium to summarize and present the research process and Alpha signals. Communicated with the judging team on signal logic and risk assessment, incorporating feedback for further improvement.

WorldQuant MAPC 2024 Global 11 / 850, UK 1st

- Used multidimensional data from the Global Universe and applied time-series and cross-sectional operators for Alpha signal research, developing 39 low-correlation Global Universe Alpha factors and achieving strong Alpha portfolio performance. Established the private repository PWOL (PENGYI WORLDQUANT) to organize the underlying logic of factors and datasets. Established private repositories including P-Trading for online quantitative strategy monitoring and operational optimization under different market conditions.

Work Experience

Ping An Bank Shenzhen, 2025.07 – Present
Management Trainee (Corporate Banking / Retail Banking / Operations Rotation, FICC communication with the Treasury Operations Center, Annual Performance Top 10%)

- Assisted in organizing corporate clients' operating information, industry materials and financial product requirements, and participated in credit and business material preparation, covering strategic industries including new-energy vehicles, internet ecosystems and cross-border trade. Improved departmental administrative efficiency by 10%. Actively participated in FICC-related communication with the Treasury Operations Center and studied trading instruments and trading rules across Fixed Income, precious metals and foreign exchange.
- Participated in real business workflows across transaction banking, cross-border settlement and cash management product teams, developing an understanding of client needs and client profiling, and participating in the full process from product solutions and risk assessment to approval coordination and business implementation. Participated in industry research for the Business Management Department and conducted batch searches, investigations and information distribution on regional industries and companies, improving business development efficiency by 5%.
- Conducted research on foreign-exchange trading strategies and counterparty trading behaviour, including multidimensional strategy research based on L0, L1, L2, L3 and OTC data. Combined prior quantitative research experience with FICC asset-class research and developed related GitHub projects, including the private repository PFICC (PENGYI FICC, dedicated to FICC strategy research) and the public repository https://github.com/pengpengyi92/rates-bond-quant.

AI, Data and Quantitative Research Projects

AI Agent and Data Research Engineering AI Agent Applications and Research, 2026

- Established PAT (PENGYI Agent Team) to track frontier agentic research across five areas: RAG, Memory, tool use, planning and benchmark research, supporting the development of my own agent team.
- Established PPRT (PENGYI PULL REQUEST TEAM) and actively participated in open-source collaboration on GitHub, continuously contributing to projects including WeKnora, NautilusTrader, LightRAG, Vibe-Trading, nanobot and OpenClaw, with a total of 36 merged PRs to date.
- Established PDAT (PENGYI DATA TEAM) to collect data resources based on strategy requirements and progressively build my own data infrastructure: the DMS (Data Management System) within P-Trader. Performed data cleaning, structured processing and data-quality management according to strategy requirements.

PTFT: Trend-Following Strategy Research Derived and iterated from a commodity futures research programme at Shanghai Huiyan Private Fund

- Conducted price-volume research based on daily-frequency L0 data and combined Order Book L1/L2 data with Trade L3 data to jointly construct trend signals.

PMMT Market-Making Strategy Research and P-Trader Derived and iterated from a Positive Venture DAO research programme

- Based on L1/L2 Order Book data and L3 tick-by-tick trade data, studied market microstructure features including mid price, spread, order book imbalance and trade-flow imbalance to research fair-price estimation. Combined inventory requirements with the study of appropriate bilateral Bid-Ask quoting.

Skills and Awards

Quantitative Research and Engineering: Alpha research, data cleaning, cross-sectional research, time-series research, operator research, neutralization, backtesting and evaluation, signal diagnostics, risk analysis, market microstructure, quantitative system operations support, statistical analysis.

Programming and Data: Python, Jupyter, Git / GitHub, Excel, LaTeX.

AI Research and Engineering: LLM, RAG, Agent harness, AI Infra, experiment logging, Codex, Claude Code, memory file management, agent team development, benchmark research, tool use, planning and constraints, full-stack AI development, AI-assisted data analysis, quantitative research and engineering.

Financial Domain Knowledge: Corporate banking, retail banking, operations management, credit approval processes, supply-chain finance, internet finance, transaction banking, settlement and cash management, cross-border finance, FICC research, FX client profiling and management, interest rates, foreign exchange and related derivatives.

Languages: Chinese (Native), English (IELTS 7.0, capable of business and academic communication), Cantonese.

Other Awards: 10th Place, Nanjing Marathon 7 km Fun Run; University of Reading Outstanding Graduate Award (Distinction);