

Pak Ming, Cheung (Pak)

Age 48 (DOB Aug, 1976)

Married, Father of 2.

Head of Quants in London | Quantitative Forex, Commodities & Crypto Trader | Algorithmic Trading Specialist | Expert in Multi-Frequency Trading, CFD, DeFi, NFTs & Systematic Trading

Profile Summary:

I am a quantitative trader with over 10 years of expertise spanning Forex, commodities, indices, CFDs, and cryptocurrency markets. Currently serving as Head of Quants at Quant Sigma Ltd. in London, I lead the strategic transition from Medium-Frequency Trading (MFT) to advanced High-Frequency Trading (HFT). My role involves implementing ultra-low-latency trading solutions, colocation strategies (notably at CME Aurora and Equinix LD4), integrating FIX and iLink APIs to optimize execution across Forex, crypto, and futures markets, and conducting weekly investment-grade quantitative performance reports. My HFT strategies primarily include market making, statistical arbitrage, latency arbitrage, momentum trading, scalping, and cross-exchange arbitrage.

At Quant Sigma, I have successfully managed proprietary MFT strategies, consistently achieving near 20% monthly ROI, translating to an annualized return exceeding 200%. These strategies include trend-following, mean-reversion, volatility breakout, and momentum trading. Performance is supported by meticulous backtesting, volatility-adjusted position sizing, and systematic parameter optimization, ensuring superior reward-to-risk outcomes and robust risk management.

Throughout my career, I have scaled initial trading capital by over 20x, achieving Sharpe ratios ranging from 1.5+ in Forex and CFD markets to between 2 and 6 in cryptocurrency markets, with maximum drawdowns (DD) consistently maintained below 5-10% for traditional markets and below 15% for cryptocurrencies.

An early adopter in the cryptocurrency space since investing in Bitcoin at \$80 in 2013, I possess deep insights into crypto market dynamics, on-chain analytics, centralized exchanges (CEX), decentralized finance (DeFi), and derivative products. This has enabled me to effectively exploit opportunities in spot, perpetuals, and structured derivatives, tailored to the unique volatility and liquidity profiles of crypto assets.

My technical expertise includes MetaTrader MT5, Python, and advanced machine learning techniques. Currently pursuing my Master of Computer Science in AI and Data Science at a UK university, I actively integrate models such as XGBoost, Transformer models, and reinforcement learning algorithms into sentiment analysis, execution optimization, and predictive analytics. Additionally, I leverage comprehensive market data platforms like TradingView, Glassnode, Tick Data Suite, and Benzinga Pro to continuously refine my systematic and high-frequency trading strategies, maintaining a competitive advantage and consistent profitability.

Key Achievements:

- ✅ **HFT Transition Leader** – Spearheading **Quant Sigma's** shift from MFT to HFT, integrating **low-latency trading infrastructure, FIX API execution, and ultra-fast data processing.**
- ✅ **Forex & Crypto Profitability** – Scaled **20x** in **Forex, CFDs, Indices, Commodities, and Crypto**, developing **high-performance arbitrage and scalping strategies.**
- ✅ **Early Crypto Pioneer** – Entered **Bitcoin at US\$80**, leveraging first-mover insights for **altcoins, NFT markets, and DeFi opportunities.**







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- ✓ **AI & LLM-Powered Trading** – Utilizes **LLMs (ChatGPT Pro, Mistral, DeepSeek, Claude, Qwen, Gemini, Perplexity AI)** and **AI-driven analytics** for predictive modeling, execution efficiency, and **real-time strategy optimization**.
- ✓ **Advanced Risk Management** – Implements **dynamic hedging, volatility modeling, and real-time risk analytics** to enhance **capital protection and trade execution**.
- ✓ **Web3 & DeFi Trading** – Expertise in **on-chain swaps, trend-trading strategies, and liquidity provision analytics** without market-making.

Core Competencies:

-  **Systematic & Algorithmic Trading** – Develops **multi-frequency trading models (MFT & HFT)** for **Forex, Indices, Commodities, CFDs, and Crypto**, focusing on **scalping, arbitrage, and trend-following**.
-  **MT4/5, Python & Execution Automation** – Builds **Expert Advisors (EAs), backtesting frameworks, and automated trading scripts** for **optimized execution**.
-  **Data-Driven Trading & AI Analytics** – Integrates **machine learning (scikit-learn), reinforcement learning, and LLMs** for **predictive analytics and execution enhancement**.
-  **DeFi, NFT & Web3 Trading Strategies** – Engages in **on-chain swaps, statistical modeling, and yield-generating DeFi strategies**.
-  **Forex, CFD, and Crypto Strategy Optimization** – Refines strategies using **TradingView, Benzinga, Finviz, Glassnode, and Tick Data Suite** for data-driven trade decisions.
-  **Risk & Portfolio Management** – Implements **dynamic leverage control, quantitative hedging, and algorithmic risk assessment**.

Professional Development & Technical Skills:

Education & Certifications:

- **MSc in AI & Data Science (2025)** – Focus on **AI-assisted trading, LLM automation, and quantitative finance applications**
- Passed Licensing Examination for Securities and Futures Intermediaries (2021).
- BBA in Marketing (HKUST, 1995)

Trading & Backtesting Platforms:

- MetaTrader MT4/5 (Algo-Trading, EAs, Backtesting, Execution Automation)
- TradingView | Benzinga Pro | Finviz | Glassnode | Tick Data Suite
- API Integration (API usage for trade automation on platforms like Kraken and Binance)
- Python (NumPy, Pandas, scikit-learn, AI integration for trading models)

Forex, CFD, Crypto, and Web3 Expertise:

- Forex & CFD Brokers | Commodities & Indices | Crypto Exchanges (Binance, Kraken, Coinbase, Gate.io)
- DeFi Yield Strategies, Cross-Chain Arbitrage, and On-Chain Trading Analytics

HFT & Execution Infrastructure:

- Colocation Deployment | FIX API Trading | Low-Latency Execution Optimization

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CAREER HISTORY

Quant Sigma Limited, @ London, UK

Dec 2023 - Current

Head of Quants

Role Overview:

Lead quantitative research and strategic development focused on transitioning from Medium-Frequency Trading (MFT) to advanced High-Frequency Trading (HFT) across Forex, CFDs, cryptocurrencies, and futures markets. Oversee algorithmic trading lifecycle from concept development and rigorous backtesting to live execution, performance analysis, and comprehensive risk management. Mentor quantitative analysts and developers, driving innovation and continuous enhancement of trading models to optimize ROI and operational efficiency. Consistently achieving near 20% monthly ROI, translating to an annualized return exceeding 200%.

Key Responsibilities:

◆ Leadership & Strategy:

- Direct R&D initiatives for advanced multi-frequency and HFT algorithmic strategies.
- Align quantitative and technology resources with strategic company objectives to achieve high ROI and operational excellence.

◆ Investment Research & Public Engagement:

- Produce detailed investment-grade quantitative performance reports, highlighting strategy performance, ROI analytics, portfolio insights, and market trends.
- Present comprehensive analyses to internal stakeholders, prospective investors, and at industry events, effectively demonstrating Quant Sigma's quantitative expertise.

◆ Technology & Infrastructure:

- Implement and oversee ultra-low-latency trading infrastructures, including colocation at CME Aurora and Equinix LD4.
- Integrate advanced trading platforms (MT5, Python frameworks) with FIX and iLink APIs and manage real-time market data feeds.
- Establish sophisticated backtesting and simulation environments to ensure robust and reliable algorithm deployment.

◆ AI-Fueled Backtesting:

- Conduct extensive backtesting using advanced Python-based automation and AI-driven insights to enhance algorithm performance and optimize ROI in dynamic multi-frequency trading scenarios.

◆ Risk Management & Market Analysis:

- Maintain rigorous risk frameworks, actively managing metrics such as maximum drawdown, Sharpe ratios, and comprehensive stress testing to effectively adapt to evolving market volatility.
- Leverage cutting-edge techniques including AI, machine learning (XGBoost, Transformer, Scikit-learn models), and blockchain analytics for superior market forecasting and ROI improvement.

◆ Reporting & Collaboration:

- Regularly deliver clear, actionable performance reports to senior management, focusing on profit and loss (PnL), ROI, Sharpe ratios, win rates, and overall strategy effectiveness.
- Continuously monitor technological advancements and regulatory developments to maintain compliance, manage risk, and sustain competitive advantage.

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Pacific Cloud Computing Limited, Remote in UK & @ Hong Kong

Jan 2015 – Nov 2024

Quant and Algorithmic Trader

Role & Responsibilities:

- ◆ **Algorithmic Trading Strategies:** Designed, developed, and implemented a range of quantitative trading strategies for Forex and cryptocurrency markets, achieving a Sharpe ratio of 1.5+ in Forex and CFD trading and between 2-6 in the crypto space. These strategies, including spot, futures, CFDs, and SWAPs, generated over 20x in profit through strategic trades and arbitrage.
- ◆ **Crypto and Forex Expertise:** Developed a comprehensive understanding of cryptocurrency, blockchain technologies, and NFTs, optimizing trading approaches and applying advanced risk management strategies to mitigate risks in volatile markets. Successfully navigated centralized platforms like Coinbase, Kraken, Binance, Gate.io, and Web3-based platforms.
- ◆ **DeFi Integration:** Leveraged decentralized exchanges and DeFi protocols to enhance portfolio yield through staking, liquidity provision, and yield farming, supporting portfolio diversification and boosting returns in the crypto space.
- ◆ **Risk Management and Market Analysis:** Applied sophisticated risk management techniques, using Python and other analytical tools to construct predictive models, optimizing portfolio performance and dynamically managing market risks.
- ◆ **Backtesting and Automation:** Conducted extensive backtesting using MT4/5 and Python-based automation, refining trading models and integrating AI-powered insights to maximize performance, particularly in high-frequency trading environments.
- ◆ **NFT Strategy and Blockchain Integration:** Led NFT-focused trading projects, incorporating blockchain assets into investment portfolios and identifying strategic opportunities within the NFT marketplace, enhancing portfolio performance.
- ◆ **Strategic Partnerships:** Built strong relationships with blockchain technology providers, centralized exchanges, and DeFi protocols, expanding Pacific Cloud Computing Ltd.'s market reach and technological capabilities.
- ◆ **Investment Reporting:** Authored professional market and data analysis reports tailored for family office investments and distribution to potential investors, offering insights into market conditions and investment strategies.
- ◆ **Team Collaboration:** Partnered with internal teams and external stakeholders to stay updated on technological advancements, regulatory changes, and industry trends, optimizing trading processes and achieving consistent profitability.

EDUCATION & CERTIFICATIONS

- ◆ MSc in Computer Science with a focus on Artificial Intelligence and Data Science at the University of Wolverhampton (2023-2025), underscoring my dedication to continuous learning and keeping pace with advancements in AI.
- ◆ Engaged in Harvard CS50x and AWS Certified Solutions Architect Associate, AWS Certified Developer Associate modules, enhancing cloud, programming and development skills.
- ◆ Passed The Papers 1,7,8,12 of the Licensing Examination for Securities and Futures Intermediaries (LE) in 2021. The LEs have been recognized by The Securities and Futures Commission of Hong Kong
- ◆ Bachelor of Business Administration (BBA) in Marketing, The Hong Kong University of Science & Technology, 1995.
- ◆ Completed Hong Kong Certificate of Education Examination (HKCEE) in 1993 and Hong Kong Advanced Level Examination (HK A-Level) in 1995.
- ◆ Qualified in the Insurance Intermediaries Qualifying Examination (IIQE) - Papers I, III, & IV, 2013.

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COMPUTER AND TECHNICAL SKILLS

◆ Trading Platforms & Tools

Extensive experience with **MT4/5** for both **Forex** and **crypto** trading, utilizing **Expert Advisors (EA)** for automated strategies, backtesting, and efficient trade execution. Skilled in **TradingView** for advanced charting, custom scripting, and strategy refinement.

◆ Financial Analysis Tools

Proficient in **Trading Technologies** for sophisticated trade execution, **Tick Data Suite** for precision backtesting, and **Benzinga Pro/Finviz Elite** for real-time market insights and equity screening. Experienced with **Seeking Alpha Pro** for deep fundamental analysis and **3Commas** for automated crypto trading. Familiar with **Zapier** to automate workflows and **CoinAPI/Polygon.io** for comprehensive market data integration.

◆ Algorithmic Trading & Automation

Skilled in **MQL5, Python & C++**, for designing and optimizing algorithmic trading models. Hands-on experience integrating APIs from major exchanges (Kraken, Binance, Interactive Brokers), focusing on streamlined automated workflows and high-efficiency execution.

◆ Technical Analysis & Market Research

Leverage **TradingView** for real-time charting and multi-indicator analysis across **Crypto, Forex, and equities**. Conduct in-depth market research to build and validate profitable trading strategies.

◆ Blockchain, DeFi, and NFT Technologies

In-depth knowledge of **blockchain, cryptocurrency, DeFi** platforms, and **NFT** trading. Skilled in managing decentralized trades using **Web3** technologies and integrating smart contracts via **Remix-Solidity IDE**.

◆ Risk Management & Portfolio Optimization

Applied advanced risk management methodologies and **AI-powered** insights to optimize multi-asset portfolios. Capable of mitigating market risk in **Crypto** and **Forex** through disciplined hedging, drawdown control, and data-driven position sizing.

◆ Cloud Computing for Trading Infrastructure

Proficient in **AWS, Azure, and Google Cloud** for building secure, scalable environments supporting mid-frequency trading, data processing, and continuous integration/deployment.

◆ AI & Machine Learning for Trading

Knowledgeable in using **AI-driven** tools (e.g., **ChatGPT Pro, Mistral, DeepSeek, Claude, Grok, Qwen, Gemini, Perplexity, China's SenseTime, Hugging Face, etc.**) to develop predictive models and enhance algorithmic decision-making. Skilled in **scikit-learn** for time-series forecasting and classification tasks.

◆ Web Development & Productivity Tools

Experienced in **HTML, CSS, JavaScript, PHP, Python, React, TypeScript, Node.js, Next.js, Express.js, Flask, Git, GitHub, Docker, CI/CD** for application development. Proficient in **Visual Studio Code, Trello, Slack, Zoom, and Microsoft Office Suite** for collaboration, project management, and IP telephony.

◆ Business Tools

Proficient in **Google Analytics, WordPress**, and CRM platforms such as **Salesforce, HubSpot, and Zoho CRM** for data-driven insights, performance tracking, and strategic business planning.