

# HO YIN KIAT

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## WORK EXPERIENCE

### Quantitative Research Intern, Tokka Labs, Singapore

Aug 2024

### Quantitative Analyst Intern, Phillip Securities, Singapore

May 2024 - Aug 2024

- Leveraged BERT-based Large Language Models to conduct sentiment analysis with over 92% classification accuracy on news headlines from Reuters, integrating these sentiment scores into systematic trading strategies for the SGX stock universe.
- Enhanced the internal Python backtesting framework to support multi-factor models, enabling researchers to input customized asset factors for streamlined and efficient multi-factor backtesting.
- Constructed a diverse spectrum of quantitative trading strategies independently, encompassing reinforcement learning, multi-factor modelling as well as statistical arbitrage based strategies, with Sharpe Ratios exceeding 1.5 and low maximum drawdown rates.

### Full Stack Developer Intern, Azendian Solutions, Singapore

Aug 2023 - Present

- Revamped Azendian Estate's Dashboard Management System for Keppel, developing key features on both the frontend and backend in a Sprint team, applying Agile Methodologies across 3 sprints.
- Implemented multiple scalable RESTful APIs on Express.js server-side applications, integrating with Azure and PostgreSQL database.
- Developed and implemented responsive user interface designs for Azendian's Real-Time Dashboard using React.js, working cross-functionally using Git and Jira.

### Data Analytics and Visualization Intern, United Overseas Bank, Singapore

May 2023 - Aug 2023

- Transformed over millions of rows of financial data for sales performance data analysis with Microsoft Power BI and Python Pandas.
- Constructed multiple end-to-end Power BI data models for the Business Management team, streamlining and automating monthly financial reporting process of data cleaning, data aggregation and dashboard building.
- Utilized data visualization tools in Power BI to generate monthly dashboards for performance tracking across both individual and organisational level.

## EDUCATION

### National University of Singapore

Expected May 2026

### Bachelor of Science in Business Analytics, Minor in Quantitative Finance

- Achieved an overall GPA of 4.78.
- Relevant Coursework: Database Management, Statistical Analysis, Econometrics Modelling, Object-Oriented Programming, Data Structures and Algorithms, Quantitative Finance, Optimization Techniques, Bayesian Networks, Markov Models.
- Participated in the IMC Prosperity Challenge, developing efficient market making algorithms in Python to market make in a virtual challenge.
- Achieved Top 8 in the NUS Fintech Summit, crafting quantitative strategies for hedging impermanent loss and optimising fee returns in Uniswap V3.
- Technical Skills: Python, Java, JavaScript, R, Tableau, PowerBI

## PROJECTS

### Developer, Hedging IL and Optimising Fee Returns with ARIMA-GARCH, Singapore

Dec 2023

- Formulated a quantitative strategy for providing liquidity in Uniswap V3 pools (ETH/WBTC) by applying a combination of options, futures and machine learning.
- Designed a hybrid ARIMA-GARCH model in modelling Uniswap V3 pool prices, forecasting prices and volatility by deploying the Walk-Forward Validation technique, accomplishing high accuracy with roughly 1% in mean absolute percentage error.
- Established a delta-neutral options hedging strategy, along with a fee optimisation strategy utilising forecasted volatilities and Futures data to create price boundaries for Liquidity Providers, attaining annual percentage yields of over 10% and beating the HODL 50-50 portfolio.

### Quantitative Research Consultant, WorldQuant, Singapore

Aug 2023 - Present

- Conducted independent financial market analyses and quantitative research on equities portfolio trading strategies, developing over 20 technical and fundamental based alphas hypotheses.
- Built an Alpha Generation Engine in Python, algorithmically searching and constructing alpha expressions based on research insights.
- Automated simulation and backtesting on the BRAIN platform with web scraping, attaining performances of Sharpe Ratios over 1.5 and fitness over 1.

## EXTRA-CURRICULAR ACTIVITIES

### Quartermaster, NUS Varsity Canoeing, Singapore

Aug 2022 - Present

- Achieved multiple podium finishes in marathon and sprint competitions across the national level
- Contributed to team's overall second place achievement in Inter-Tertiary Canoe Championships through mentorship and individual achievements
- Appointed as the team's quarter-master, responsible for management of team's equipment as well as coordinating with other stakeholders to execute 100 man strong team-wide activities.