Fred H. Li

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EDUCATION

Washington University in St. Louis (WashU) **St. Louis, MO, USA**
M.S. in Finance, Quantitative Sep 2023 – Dec 2024
- **GPA**: 3.95/4.00, Rank 2/89
- **Honors**: All-semester Dean's List, Beta Gamma Sigma Award, Charles F. Knight Scholar (Expected)
- **Coursework**: Continuous-Time Finance (Ph.D. Level), Stochastic Calculus, Exotic & Fixed Income Derivative Pricing, SQL and Database Design, Python & R Machine Learning, LASSO, Quantitative Risk Management, Advanced Corporate Finance I & II

The University of Hong Kong (HKU) **Hong Kong**
B.S. in Economics and Finance Sep 2017 – May 2021
- **Rank** top 35%, Graduated with 2:1 Distinction, **Selected** as C.V. Starr Scholarship recipient to exchange at Sciences Po Paris

PROFESSIONAL EXPERIENCE

Olin Business School at Washington University in St. Louis **St. Louis, MO, USA**
Research Intern May 2024 – Present
- ***Selected Project**: Python-driven, Real-time Political Speech Sentiment Signal Tool on Abnormal Market Movements*
  - Developed a Selenium Chrome-driver scraper to extract U.S. congressional hearing scripts and related social media accounts
  - Fine-tuned BERT Topic Model and its sub-models to implement topic classification of the congressional hearing database
  - Built an anomaly detection model on sentiment trends to flag moments where sentiment sharply deviates from baseline
  - Created an automated alert mechanism triggered by specific keywords, phrases, or sentiment shifts against fiscal and monetary policies, to enable rapid responses to market-moving and short-term trading opportunities
- Overlaid UK budget announcement shock with market data to visualize how certain political event statements or sentiment trends coincide with market price changes, supporting research project on fiscal shock omitted variable bias (OVB)

Privium Fund Management **Hong Kong**
Portfolio Manager – US$ 200M Option Selling (Short Straddle) Strategy Apr 2022 – Dec 2022
- Co-managed the strategy, applied Black-Scholes and Heston-Nandi GARCH option pricing to optimize premium income
- Ensured macro-overlay and market breadth, evaluated liquidity and volatility metrics to align trades with market trends
- Applied pricing models (Heston, Barra, Black-Litterman, Greek hedging) for underlying asset price prediction and risk alignment
- Controlled portfolio risk through diversification to mitigate contagion and application of risk models to evaluate potential losses
- Optimized strategies, utilized algorithmic trading to minimize slippage, enhance efficiency, and reduce risk exposure
- Integrated transaction costs, stress testing, and market impact analysis to guarantee accurate performance metrics

Yong Rong Asset **Hong Kong**
Junior Trader – US$ 30M High Conviction Sub-fund Jun 2021 – Jan 2022
- Analyzed and constructed trade flows, submitting orders and collaborating with counterparties to optimize trading outcomes
- Utilized strategies such as limit orders, VWAP, TWAP to achieve optimal execution and transaction cost control (TCA)
- Supported strategic asset allocation, used VBA to streamline trading script maintenance and Net Asset Value report process

Peak Global Investments **Hong Kong**
Private Equity Intern Sep 2020 – May 2021
- Researched cryptocurrency exchanges across Asia and Europe, liaised with senior executives to prepare for acquisitions
- Assessed client pain points and formulated pitch decks for management team in business development presentations
- Collaborated with world's largest crypto exchange, applied API to assess targets' trading volumes and their authenticity

PROJECT EXPERIENCE

Microstructure-Informed End-of-Day Frequency Trading Strategy **St. Louis, MO, USA**
Trading Strategy Design Oct 2024 – Present
- Currently developing a proprietary end-of-day (EoD) frequency trading strategy, leveraging market microstructure analysis and machine learning techniques (LASSO, LSTM, kNN) to predict price movements and execute trades in the U.S. equities market

Hull-White Model Calibration for At-the-Money (ATM) Caplets and Caps **St. Louis, MO, USA**
Outputs: fredhli.github.io/projects/#hull-white-model-calibration Mar 2024 – May 2024
- Implemented closed-form caplet pricing solutions and Monte-Carlo price check, to optimize Hull-White model parameters against ATM Caplet market data, achieving high accuracy in long-maturity cap pricing > 15 years with less than 3% function value loss

SKILLS AND QUALIFICATIONS

Certificates	CFA Level I, HKSFC Type 4 & 9: Advise on Securities & Asset Management License
Teaching	TA for: *Options, Futures and Derivative Securities (Undergraduate); Behavioral Finance (Graduate)*
Research	RA for: *Research on PEVC-backed companies* – under Prof. Minmo Gahng, Cornell University
Volunteering	NGO Marketing Director, Soap Cycling HKU; Village School Teacher, Beyond the Pivot HKU
Programming	Proficient in Python, R, SQL, Git, VBA, LaTeX; Intermediate in Stata, MATLAB; Basic in JavaScript
Work Permits	Hong Kong SAR (Permanent Citizenship), Canada (OWP with Citizenship Assurance), USA (OPT)