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, Asset Pricing, Python and R Machine Learning, LASSO, SQL, Quantitative Risk Management, Corporate Finance I & II

The University of Hong Kong (HKU) — **Hong Kong**
B.S. in Economics and Finance — Sep 2017 – May 2021

- **GPA**: 3.41/4.00, Rank top 35%, **Awarded** 2:1 Distinction, HKU Reaching Out Award (C.V. Starr Scholarship)
- **Admitted** based on achieving top 0.07% province-ranking (143rd / 200,000) in National College Entrance Exam (Gaokao)

Institut d'Études Politiques de Paris (Sciences Po) — **Paris, France**
Scholarship-Awarded Exchange Student — Jan 2020 – May 2020

PROFESSIONAL EXPERIENCE

Olin Business School at Washington University in St. Louis — **St. Louis, MO, USA**
Research Intern — May 2024 – Present

Overview: Data scientist focused on real-time sentiment tools to capture politically driven market opportunities

- Developed a Selenium Chrome-driver scraper to extract congressional hearing scripts, fine-tuned BERT and its sub-models to improve sentiment classifications, transforming it into a novel text-based database for political research
- Assisted in developing real-time political speech sentiment signal tool using congressional hearing database, enabling quick detection of politically driven market movements and capitalization on short-term trading opportunities
- Conducted time-series analysis to identify a direct link between fiscal sentiment shocks and asset price changes, addressing omitted variable bias (OVB) by isolating sentiment effects from broader economic conditions

Privium Fund Management — **Hong Kong**
Portfolio Manager — Apr 2022 – Dec 2022

Overview: Co-managed US$200M AUM options selling strategy, overseeing algorithmic trading and risk management

- Executed options selling strategy on index options, minimizing slippage and maximizing premiums with algorithmic trading
- Integrated transaction costs, stop-loss mechanisms, and market impact analysis to guarantee accurate performance metrics
- Applied risk models (Barra, Black-Litterman, Axioma, Greeks) for portfolio optimization and ensuring risk alignment
- Managed liquidity and order book dynamics, performed portfolio stress testing to assure portfolio robustness

Yong Rong Asset — **Hong Kong**
Junior Trader — Jun 2021 – Jan 2022

Overview: Research-focused buy-side trader at a fundamental high-conviction macro sub-fund with US$30M AUM

- Participated in trading activities, maintained the firm's trading and reporting scripts to support execution
- Drafted comprehensive research memos for U.S. space exploration, remote sensing, and Hong Kong machinery sectors

Peak Global Investments — **Hong Kong**
Private Equity Intern — Sep 2020 – May 2021

Overview: Research and due diligence-focused intern while contributing to fund's crypto and DeFi proprietary trading strategies

- Researched cryptocurrency exchanges across Asia and Europe, liaised with senior executives to prepare for acquisitions
- Analyzed client pain points and formulated pitch decks for management team in business development presentations
- Collaborated with world's largest crypto exchange, utilized 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 to predict immediate price movements and execute rapid trades in the U.S. equities market
- Predicted short-term price movements, optimized code for low-latency execution, back-tested using EOD dataset

Hull-White Model Calibration for At-the-Money Caplets and Caps — **St. Louis, MO, USA**
GitHub Repository: github.com/fredhli/Hull-White-Caplet-Calibration — Mar 2024 – May 2024

- Implemented closed-form and Monte-Carlo based price solutions to optimize Hull-White model parameters against 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-9 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; Volunteer 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)