

# Fred H. Li

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## EDUCATION

<b>Washington University in St. Louis (WashU)</b> <i>M.S. in Finance, Quantitative</i> ▪ <b>GPA:</b> 3.95/4.00, Rank 2/89 ▪ <b>Honors:</b> All-semester Dean's List, Beta Gamma Sigma Award, Charles F. Knight Scholar (Expected) ▪ <b>Coursework:</b> 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	<b>St. Louis, MO, USA</b> Sep 2023 – Dec 2024 (Expected)
<b>The University of Hong Kong (HKU)</b> <i>B.S. in Economics and Finance</i> ▪ <b>GPA:</b> 3.41/4.00, Rank top 35%, <b>Awarded</b> 2:1 Distinction, HKU Reaching Out Award (C.V. Starr Scholarship) ▪ <b>Admitted</b> based on achieving top 0.07% province-ranking (143 <sup>rd</sup> / 200,000) in National College Entrance Exam (Gaokao)	<b>Hong Kong</b> Sep 2017 – May 2021
<b>Institut d'Études Politiques de Paris (Sciences Po)</b> <i>Scholarship-Awarded Exchange Student</i>	<b>Paris, France</b> Jan 2020 – May 2020

## PROFESSIONAL EXPERIENCE

<b>Olin Business School at Washington University in St. Louis</b> <i>Research Intern</i> <b>Overview:</b> Data scientist focused on real-time sentiment tools to capture politically driven market opportunities ▪ Conducted time-series analysis to identify a direct link between UK government-vs-media fiscal sentiment shocks and asset price changes, addressing omitted variable bias (OVb) by isolating sentiment effects from broader economic conditions ▪ Developed a Selenium Chromedriver scraper to extract data from news databases, improved sentiment classification through BERT and sub-model (HDBSCAN, c-TFIDF) fine-tuning, transforming it into a key resource for quantitative research ▪ Assisted in developing real-time sentiment signal tool by integrating sentiment shifts from hearing scripts, enabling quick detection of politically driven market movements and enhancing the ability to capitalize on short-term trading opportunities	<b>St. Louis, MO, USA</b> May 2024 – Present
<b>Privium Fund Management</b> <i>Portfolio Manager</i> <b>Overview:</b> 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 ensure 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 ensure portfolio robustness	<b>Hong Kong</b> Apr 2022 – Dec 2022
<b>Yong Rong Asset</b> <i>Junior Trader</i> <b>Overview:</b> 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 ▪ Produced comprehensive research memos for U.S. space exploration, remote sensing, and Hong Kong machinery sectors	<b>Hong Kong</b> Jun 2021 – Jan 2022
<b>Peak Global Investments</b> <i>Private Equity Intern</i> <b>Overview:</b> Research, due diligence-focused intern while contributing to the firm's crypto and DeFi proprietary trading strategies ▪ Researched cryptocurrency exchanges across Asia and Europe, liaised with senior executives to prepare for acquisitions ▪ Involved in a chemical product company and a real estate company's margin financing deal by conducting due diligence ▪ Collaborated with world's largest crypto exchange, utilized API to assess targets' trading volumes and their authenticity	<b>Hong Kong</b> Sep 2020 – May 2021

## PROJECT EXPERIENCE

<b>Microstructure-Informed High-Frequency Trading Strategy</b> <i>Trading Strategy Design</i> ▪ Currently developing a proprietary high-frequency trading (HFT) 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 high-frequency dataset	<b>St. Louis, MO, USA</b> Oct 2024 – Present
<b>Hull-White Model Calibration for At-the-Money Caplets and Caps</b> <i>GitHub Repository: <a href="https://github.com/fredhli/Hull-White-Caplet-Calibration">github.com/fredhli/Hull-White-Caplet-Calibration</a></i> ▪ Implemented closed-form and Monte-Carlo based price solutions, optimizing 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	<b>St. Louis, MO, USA</b> Mar 2024 – May 2024

## ADDITIONAL QUALIFICATIONS

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