JINGHAN (BONNIE) XU

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EDUCATION

MIT SLOAN SCHOOL OF MANAGEMENT **Cambridge, MA**
Candidate for Master of Finance | Financial Engineering Concentration | GPA: 5.00/5.00 *Jul 2024 – Feb 2026*
- Anticipated Courses: Machine Learning in Finance (NLP), Data Science and Computing, Deep Learning, Algorithms

HARVARD UNIVERSITY, SCHOOL OF ENGINEERING AND APPLIED SCIENCES **Cambridge, MA**
Visiting Student | GPA: 4.00/4.00 *Sep 2023 – Dec 2023*
- Courses: Data Science, Unsupervised Learning, Network and Text Analysis, Financial Markets

PEKING UNIVERSITY, GUANGHUA SCHOOL OF MANAGEMENT **Beijing, China**
M.S. in Finance | GPA: 3.91/4.00 (top 1%) | National Scholarship *Sep 2022 – Jun 2024*
B.Ec. in Finance | GPA: 3.86/4.00 (top 5%) | Outstanding Graduate Award *Sep 2018 – Jun 2022*
- Courses: Derivatives Pricing, Stochastic Analysis, Time Series, Numerical Methods, Risk Management, Macroeconomics

WORK EXPERIENCE

HARVEST FUND MANAGEMENT CO., LTD **Beijing, China**
Quantitative Research Intern, Index Investment & Smart Beta Group *Jan 2023 – Apr 2023*
- **Market Sentiment Signal:** Constructed daily China A-share sentiment signal using price-volume, fund flow, and options market data; applied PCA to synthesize signal, enabling identification of sentiment regime and potential trading opportunities
- **Dynamic Tactical Allocation:** Developed and implemented strategy that dynamically adjusts risky asset weights based on market sentiment signal, achieving 43% reduction in maximum drawdown
- **Sector Rotation Strategy:** Designed and backtested growth/value sector rotation strategy, based on signals that capture the interaction effect of market sentiment and growth momentum; improved Sharpe ratio from 0.12 (equal weighted) to 0.69
- **Automation:** Created automated sentiment tracker in Python that streamlines data extraction, cleaning, modeling, and visualization; integrated tracker into firmwide daily monitoring system

CHINA GALAXY SECURITIES CO., LTD **Beijing, China**
Quantitative Research Intern, FICC Division *Apr 2022 – Jun 2022*
- **Tail Risk Estimation:** Researched tail risk correlation between equity and fixed income asset classes and constructed double whammy warning indicator by combining copula tail dependence coefficients with stock price-volume factors
- **Asset Allocation Strategy:** Enhanced risk parity strategy by integrating tail risk indicator with other factors (e.g., momentum, valuation) to account for spiked correlations during financial turbulence and allow for dynamic risk budgeting; strategy showed backtested annualized return of 9.07% and Sharpe ratio of 1.89
- **Derivatives Pricing:** Applied Monte Carlo simulation method in Python to price exotic option contracts (e.g., Snowball and Shark Fin options) based on China 10Y government bond yield; conducted parameter sensitivity analysis

CHINA INTERNATIONAL CAPITAL CO., LTD **Beijing, China**
Trading Intern, FICC Division *Apr 2021 – Aug 2021*
- **Index Development:** Collaborated with structuring team to develop CICC Commodity Index (900001.CCI); designed commodity selection and rolling strategies; delivered implementation-ready codes in Python, leading to its listing
- **ABS Pricing:** Developed VBA tool for automated pricing of subprime ABS, including sensitivity analysis and stress testing capabilities, enhanced risk management efficiency and is now extensively utilized by wider team

PROJECTS

MIT SLOAN SCHOOL OF MANAGEMENT **Cambridge, MA**
*Credit Risk Model with **Forage, sponsored by JPMorgan Chase & Co.*** *Jul 2024 – Jul 2024*
- Built machine learning models (Logistic Regression, Random Forest) to estimate probability of personal loan default from borrower characteristics and credit rating data; optimized classification thresholds to maximize expected profitability

*Mutual Fund Strategy Alpha Evaluation with **Fidelity Investments*** *Nov 2023 – Dec 2023*
- Led a team to analyze mutual fund returns using Carhart 4-Factor model to separate systematic risk factors and strategy alpha from idiosyncratic alpha; applied residuals bootstrap to reduce sampling bias

PEKING UNIVERSITY, GUANGHUA SCHOOL OF MANAGEMENT **Beijing, China**
Research Assistant (Advisor: Prof. Chenxu Li) *Jan 2023 – Aug 2023*
- Predicted news-driven jumps by machine learning methods (Random Forest, Light GBM); examined effect of training window length on model performance and feature importance; distinguished persistent signals from short-lived signals
- Applied asymptotic expansion to stochastic differential equations to derive closed-form tri-variate expansion formulae for interest rate caplet under multi-dimensional short rate model; implemented the expansion in Mathematica

ADDITIONAL INFORMATION

- Skills: Python, R, C/C++, MATLAB, Mathematica, SQL, VBA, Bloomberg
- Interests: Volleyball (3rd place in Volleyball Competition of PKU), Iyengar Yoga, Cycling, Hiking
- Leadership: Co-founded a mentorship camp focused on personal development for freshmen in PKU; raised $10K sponsorship