

Jiayi (Jayee) Yin

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EDUCATION

University of California, Berkeley – Haas School of Business

Master of Financial Engineering

Expected 03/2026

Berkeley, CA, United States

Central University of Finance and Economics

Bachelor of Science, Applied Statistics GPA: 3.94/4.00

09/2020 - 06/2024

Beijing, China

SKILLS & CERTIFICATIONS

Programming: Python(Pandas, NumPy, SciPy, Statsmodels, PyTorch), SQL, R, MATLAB, C++

Mathematics: Stochastic Processes, PDE, Stochastic Calculus, Numerical Analysis, Time-Series Analysis

Machine Learning: XGBoost, Random Forest, LSTM, BP Neural Network, etc.

PROFESSIONAL EXPERIENCE

Lianhai Capital Asset Management, LLC

Beijing, China

Quantitative Research Intern - Commodities Futures

10/2024 – 02/2025

- Developed a term-structure model for oil futures prices and volatilities with spot and stochastic long-term prices as key determinants, used it to analyze market dynamics and volatility patterns.
- Analyzed the impact of macro indicators on commodities for initial screening; conducted in-depth industry chain analysis (supply-demand, inventories, trade flows, etc.), supplementing individual contracts with specific data.
- Built a multi-process backtesting framework, contributed factors across 4 categories (volatility, event-driven, etc.)

Quantitative Research Intern - Multi-Asset Strategy

11/2023 – 06/2024

- Forecasted bond futures returns by integrating bond price net changes and basis movements with XGBoost.
- Refined the OECD CLI to better align with China's macroeconomic scenario for economic trends forecasting.
- Preprocessed macro data with one-sided HP filtering and seasonal adjustments considering Chinese holidays; synthesized weekly macro risk factors with stronger explanatory power for bonds(adj. $R^2 > 90\%$) than equities.
- Applied weekly factors and the Bry-Boschan algorithm to delineate macro scenarios, constructed a portfolio by selecting optimal assets for each state, improving the Sharpe ratio to 0.96 and daily win ratio to 59.41%.

Tong Xin Yuan Fund Management Co.,Ltd

Beijing, China

Quantitative Research Intern - Equities & Futures

02/2023 – 06/2023

- Developed a cross-sectional backtesting framework, calculated 39 fundamental factors across 6 categories (growth, value, quality, etc.), and implemented Random Forest and XGBoost for factor synthesis.
- Optimized P&L decomposition model using Fama-Macbeth regression to analyze factor return contributions.

RESEARCH EXPERIENCE

AI-Powered Claims Coverage Assessment System Development

Berkeley, CA, United States

UC Berkeley & BriteCore

05/2025 - present

- Designed modular agents (policy terms parsing, claim evaluation) with tools like Hugging Face Transformers and LangChain, streamlining workflows and ensuring scalability across diverse policy formats.
- Automated the assessment system by invoking GPT-4 and fine-tuned transformer models to extract, analyze, and reason over policy terms, enabling accurate and consistent claim adjudication.

Research on Quantum Denoising Diffusion Probabilistic Model

Montreal, Canada

McGill University

07/2023 – 10/2023

- Prepared an arbitrary quantum state by combining the binary search with the measurement probabilities.
- Initialized random quantum states with classical data, measured the collapsed state for the subsequent training.

Research Assistant on Financial Engineering Team

Remote

China Securities

01/2023 – 03/2023

- Identified timing indicators via time-lag correlation analysis, built a regression model to assess the cement industry's supply-demand dynamics, yielding a long-short strategy with high return and low drawdown.
- Constructed seven factor crowding indicators, analyzed their Spearman correlations with factor returns and volatility over short- and long-term horizons; applied the results to sector allocation and risk management.