Yiyun Zhang

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EDUCATION

Central University of Finance and Economics (CUFE), *Major: Financial Technology | GPA 91.07/100 Sep. 2022 – Jun. 2026*

Courses: Big Data & Finance, C++ Programming, Machine Learning, Deep Learning & NLP, Data Structures & Algorithms, Introduction to Financial Engineering, MATLAB & Modeling, Blockchain Technology and Application

Honours: National Third Prize & Second Prize, Beijing Division, Chinese Mathematics Competitions; Third Prize (Top 2.5%), 14th Financial Investment Planning Competition; National Top 6 Finalist, UBS Financial Elite Challenge AIGC Track; Gold Medallist, WorldQuant BRAIN Quantitative Challenge; First-Class Academic Scholarship (College Level)

INTERNSHIP EXPERIENCE

Shanghai Redwall Taihe Fund Management Company | *Quantitative Modeling Intern* *Nov. 2025 – Present*

- **Time Series Deep Learning & PyTorch Framework:** Developed a PyTorch-based time series deep learning model with temporal attention and feature interaction layers to capture nonlinear multi-factor dynamics for return prediction and stock selection.
- **Optimisation Methods:** Enhanced ranking accuracy by implementing Listwise Ranking Loss and Weighted Pearson Correlation Coefficient (WPCC) loss, replacing traditional MSE loss to better address stock re-ranking challenges.
- **Backtesting & Performance Evaluation:** Designed an integrated backtesting framework using excess returns and information coefficient metrics to align model evaluation with business objectives, ensuring robust and practical performance.

Lianhai Capital Asset Management LLC | *Macro Hedge Strategy Intern* *Feb. 2025 – Jun. 2025*

- **Treasury Yield Forecasting Model**: Designed 20+ macroeconomic factors and optimised factor selection via Granger causality tests and AIC/BIC criteria to identify leading relationships with risk/return metrics; built factor models to forecast returns and identify risk metrics; quantified marginal factor contributions and set thresholds for portfolio adjustment.
- **Factor Timing Strategy (Deployed):** Architected trend-following/reversal signals into tactical strategies; consolidated multi-strategy outputs at a single-asset level via Mean-Variance Optimisation; optimised allocations by integrating overall and tail risk management using Calmar and Sharpe ratios; achieved a 17.96% annual return, Sharpe 1.77, Max DD: -10.29%.
- **Black-Litterman Macro Allocation:** Integrated macro scenario probability forecasts with asset return expectations into BLviews; calibrated uncertainty parameters using inverse-probability weighting; calculated equilibrium returns across 16 scenarios via MVO with scenario-weighted averages; Sharpe ratio 1.06 vs. 0.9 benchmark; annualised return 5.7% vs. 4.66%.

Huatai Securities | *Financial Engineering Intern* *Sep. 2024 – Jan. 2025*

- **ETF Flow-based Sector Rotation Strategy:** Built long-short portfolios using flow-based signals from 28 ETFs; backtesting showed contrarian predictive power under extreme flows, delivering >20% annualised return, Sharpe >1, and ~70% win rate.
- **Multi-Period Brinson Attribution Model Development:** Built a framework with daily sector-level position and return data, enabling granular P&L decomposition to sector-day dimensions; designed rolling-window smoothing using the GRAP algorithm; automated data processing via WindPy, formally integrated into the annual review process.
- **Convertible Bond Fund Exposure Estimation Model:** Developed a real-time positioning system integrating quadratic programming with prior positions estimated via ridge regression with PCA dimensionality reduction to resolve bond index multicollinearity; constructed customised indices incorporating quarterly holdings, enabling tactical allocation.

Cardinal Operations | *Data Analyst Intern* *Jun. 2024 – Sep. 2024*

- **Smart Port Scheduling Project:** Analysed 150k+ port operation records with SQL/Python; built efficiency models to identify key drivers and support scheduling optimisation; mapped end-to-end workflow; proposed dispatching rules and bottleneck solutions adopted by the algorithm team, improving unloading efficiency.
- **Airline Revenue Forecasting:** Processed large-scale flight data and designed multi-dimensional features for revenue prediction; applied Python and Excel to find key drivers; produced 12 validated variables adopted in regression models and integrated into revenue management strategies.

CITIC Securities | *Defense & Military Industry Research Intern* *Mar. 2024 – May 2024*

- **Industry & Company Analysis:** Conducted in-depth research for six leading defense companies, covering revenue composition, profit drivers, industry segmentation, market structure, capacity expansion, policy developments, etc.
- **Valuation & Strategic Analysis:** Assisted in the Low-Altitude Economy research, independently analysing two companies, focusing on investment value and corporate strategy separately, and proposed investment and strategic recommendations.

ACADEMIC EXPERIENCE

The Moderating Role of Incremental Information in Earnings Conference Calls on PEAD | *Independent Research* *Jun. 2024 – Jun. 2025*

- Managed 500K+ data cleaning & modeling; quantified MD&A/call disclosure gaps via Siamese NN and large financial language models.
- Proposed incremental information hypothesis; empirically demonstrated higher incremental information reduces Post-Earnings Announcement Drift effects, offering actionable insights for investment and risk management.

Macro Risk NLP Identification System | *Independent Project* *May 2025 – Jun. 2025*

- Built a web crawler collecting 17K financial news; fine-tuned Chinese-RoBERTa-wwm-ext & FinBERT-Tone-Chinese models for real-time sentiment quantification across ten macro risk labels; Designed composite risk factors and imitated Barra-style exposure regression; developed interactive dashboard for risk identification and sentiment analytics.

Treasury Yield Curve Modeling & Macro Forecasting | *Team Leader* *Oct. 2024 – Dec. 2024*

- Replaced classical VAR with Time-Varying Parameter VAR to estimate dynamic predictive power of yield curve on GDP and CPI.
- Extracted dynamic Nelson-Siegel factors using Python and MATLAB; applied MCMC Bayesian estimation and wavelet phase spectrum analysis to evaluate the time-frequency predictive features of interest rate factors and their interactions with macroeconomic variables.

Factor Momentum Replication & Localisation | *Team Leader* *Oct. 2024 – Dec. 2024*

- Reproduced the paper's full framework and methodology; processed 47 anomaly factors and engineered principal component factors via Python; developed time-series momentum strategies, validating the relationship between factor momentum and momentum factor and the persistent momentum effects in high-eigenvalue factor dimensions.
- Developed a proprietary database of 14 A-share factors, conducted China market validation and comparative analysis.

UBS Financial Elite Challenge| *Team Leader* *May 2024 – Jun. 2024*

- Engineered an LLM-Agent Collaboration System (GPT-4o + RAG deployment) using Python to automate daily market analysis, generating comprehensive "Daily Market Analysis Reports" within 15 minutes of the A-share market close, including Index commentary, industry sector dynamics, news digests, and overall market sentiment analysis.
- Built a proprietary A-share macro integrated data corpus; applied the FinBERT pre-trained model to process unstructured text (news, reports, announcements), and developed a Chinese financial sentiment dictionary to quantify market emotion and enhance investment signal extraction.

SKILLS & OTHER

Language: Native in Mandarin, Proficient in English: IELTS: 7, GRE322 (V152+Q170)
Computer Skills: Proficiency in Python, C++, SQL, Stata, MATLAB, Excel VBA, MySQL, etc.
Leadership: Student Cadre of CUFE Blockchain Club and CUFE's Academic Practice Dept
Club: Member, Investment Banking and Consulting Association (ICAC) at CUFE; Member, Securities Research Association of CUFE