

Ethan Jin

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EDUCATION

Tufts University

Medford, MA / Expected graduation: 2028

BA/BS in Applied Mathematics & BA/BS in Quantitative Economics

Minor in Computer Science; GPA: 3.96/4.0; Dean's List

Relevant coursework: Linear Algebra, Probability, Calculus III, Differential Equations, Data Analysis, Game Theory

EXPERIENCE

Jinge Asset Management

Jun-Jul 2025; Jan-Feb 2026; Jul-Aug 2026

Returning Quantitative Research Intern

- Developed **85 signals** across 5,000+ A-share equities; evaluated OLS, MLP, and recurrent models using **purged splits**, expanding windows, training-only preprocessing, and daily cross-sectional information coefficients (IC).
- Implemented a **CVXOPT long-only optimizer** and next-day VWAP backtester with Barra exposures, liquidity limits, turnover, cash reserves, and transaction costs; completed separate annual LSTM and OLS simulations for 2018-2023.
- Wrote an **Upper Bottom Line (UBL) factor** report; developed variants with more persistent post-2020 grouped cumulative-return separation.
- Built a disclosure pipeline covering **1,200+ Chinese ETFs** and 6,800+ reporting periods; visually verified 177 named state-team holdings and delivered traceable datasets and a six-page Chinese research report.

Empirical Asset Pricing Research

Brandeis University

Sep 2025-May 2026

- Replicated and extended **cross-sectional momentum factors** in vectorized Python (NumPy, pandas); applied survivorship-bias controls and 5 bps transaction costs to assess post-publication alpha decay.
- Developed **volatility-scaled signals** and residualized returns against macroeconomic risk; tested pre- and post-2008 regimes to assess out-of-sample Sharpe ratio stability.

RESEARCH PROJECTS

Factor Zoo, But Honest

GitHub | Dashboard

- Built an equity-factor research engine using **8.38 million daily observations** across 6,492 CRSP security identifiers from 2015-2025; computed 20 price, liquidity, and risk signals.
- Constructed **point-in-time samples** with historical eligibility, delisting returns, price and liquidity screens, and delayed $t + 2$ return labels over three horizons; used purged walk-forward validation to reduce look-ahead and survivorship bias.
- Tested **60 hypotheses** using Spearman Rank IC and HAC errors: **20 passed BH-FDR** and **8 passed Holm** correction at 5%. Backtested **540 specifications** with quintile spreads, turnover, drawdowns, and 0-50 bps costs.

Market Microstructure Adverse Selection Lab

GitHub

- Implemented a **C++ simulation backend** with **pybind11** Python bindings; verified event-level agreement with the Python reference across **37.1 million events** and three dealer quoting strategies.
- Ran **paired Monte Carlo experiments** across 56 configurations and 15,750 strategy runs; used seeded scenarios and 95% confidence intervals to compare market conditions and quoting policies.
- Found that inventory skew reduced exposure and drawdown without a **statistically conclusive PnL gain**; toxicity-adaptive quotes improved simulated PnL only when clustered flow made prior fills informative.

Classification Robustness Under Input Noise

GitHub

- Trained **five classifiers** on 10,000 clean MNIST images; evaluated 10,000 test images across five Gaussian-noise levels to compare regularization, PCA, and nonlinear modeling.
- Measured **accuracy degradation**; an MLP led on clean data, while **L1 logistic regression** achieved the highest accuracy at every nonzero noise level tested.

PUBLICATION

Price Anchoring Effect's Implications on Marketing with the 6-STEPPS Framework (2025).

DOI: 10.61173/hfk8qe29

TECHNICAL SKILLS

Languages: Python, R, C++, JavaScript

Tools: pandas, NumPy, SciPy, scikit-learn, PyTorch, DuckDB, CVXOPT, Matplotlib, Plotly, Excel

Methods: Statistical modeling, hypothesis testing, Monte Carlo simulation, cross-validation, PCA