Achintya Jha

480-698-6695 | achintyajha2004@gmail.com | linkedin.com/in/achntj | github.com/achntj | achintyajha.com

Experience

ASU Investment Management Fund ($3M AUM) Tempe, AZ

Quantitative Analyst – Systematic Strategies *Aug 2025 – Present*

- Led agnostic fundamental analysis strategy for $3M fund, deploying ensemble methods (Gradient Boosting) and regularized regression (Polynomial LASSO) to systematically identify and exploit equity mispricings, generating **48-66 bps monthly alpha** (5.76-7.92% annualized) net of Fama-French 5-factor + momentum exposure
- Designed automated research pipeline analyzing **50K+** earnings transcripts and SEC filings to identify management sentiment shifts and capital expenditure changes; backtested framework generated **+130 bps YTD** vs. benchmark.
- Built portfolio construction with sector neutrality, 3% max position, and turnover controls; reduced **annual turnover** from **65%** to **38%** while retaining 90% of unconstrained alpha.
- Established pre-trade risk monitoring for factor exposures (value, momentum, quality, size, volatility), sector deviations (±5% vs. benchmark), and concentration; identified and prevented **4** potential violations.

Tzar Labs Remote

Data Engineering Intern *May 2024 – Aug 2024*

- Designed large-scale data infrastructure processing **2+ TB** of genomic datasets; achieved **5**× pipeline throughput via parallel I/O and memory optimization.
- Built production API integrating **15+** external sources with robust validation and monitoring; delivered reliable, scalable research data services.

Research Projects

Regime-Switching Statistical Arbitrage github.com/achntj/statistical-arbitrage

- Developed 3-regime Hidden Markov Model over Ornstein–Uhlenbeck mean-reversion parameters for 31 sector-neutral pairs; traded only the high-reversion states (half-life 6 days).
- Backtested 2023–2024 OOS: Sharpe improved from **–0.74 to +0.58 post-cost**, max drawdown fell 86%, turnover per pair dropped 82%; documented alpha concentration in the top 8 pairs with $470MM capacity at 2% ADV.
- Found regime asymmetry: fast mean-reversion states persisted 13 days vs. for other states; enforcing a 3-day cooldown improved Sharpe by +1.0 vs. no-cooldown by avoiding whipsaws.

Black–Litterman with Covariance Shrinkage (Multi-Asset) github.com/achntj/Quantitative-Strategies

- Constructed diversified **29-asset** sleeve (equities, Treasuries, TIPS, commodities, REITs) using Black–Litterman with Ledoit–Wolf shrinkage to stabilize mean–variance optimization.
- Implemented long-only, sector limits, **12%** vol target, and turnover penalties; reduced turnover from 28% to 4% resulting in **30 bps** cost savings vs. unconstrained.
- Walk-forward 2015–2024; OOS 2023–2024 delivered a **Sharpe Ratio of 1.2** (vs. 0.8 MVO); momentum/carry views added **+0.21** Sharpe vs. equilibrium-only baseline.

Education

Arizona State University Tempe, AZ

B.S. Computer Science; B.S. Economics ***GPA: 4.0*** *Dean's List (all semesters)* *Aug 2022 – May 2026*

- **Coursework:** Portfolio Engineering, Financial Economics, Probability & Statistics, Regression & Time Series, Optimization, Linear Algebra, Econometrics, Game Theory.
- **Leadership**: President, Sun Devil FinTech Club, Economics Instructional Scholar (Top 9 of Economics students)

Skills

- **Programming:** Python (pandas, NumPy, statsmodels, scikit-learn, cvxpy), SQL, Git, Linux.
- **Quantitative:** Portfolio optimization (Black–Litterman, mean–variance), risk (VaR/CVaR, factor models), time series & linear models, performance attribution, backtesting & walk-forward.
- **Tools:** Excel (advanced modeling), Bloomberg Terminal, GitHub Actions (CI/CD), AWS, Docker.