Achintya Jha

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Experience

ASU Investment Management Fund ($1.6M AUM) Tempe, AZ

Quant Equity Research Analyst *Aug 2025 – Present*

- Constructed a daily investable-universe screen (Russell 3000, liquidity/price filters, sector/earnings calendars).
- Developed a text-based earnings-call signal, integrating scores into portfolio screens, reducing idea-to-trade latency from 24h to 4h.

School of Mathematical and Statistical Sciences, ASU Tempe, AZ

Undergraduate Research Assistant *Jan 2025 – May 2025*

- Improved perceptual quality by 40% and reduced latency 10× via a real-time adaptive enhancement pipeline in Python/OpenCV/NumPy, tuning CLAHE & gamma parameters.
- Automated benchmarking for 50+ algorithms with a modular evaluation suite (custom contrast & perceptual metrics), ensuring end-to-end reproducibility and rapid performance comparisons.

Epigeneres Biotech Remote

Machine Learning and Data Science Intern *May 2024 – Aug 2024*

- Designed high-throughput Python ETL for **2+ TB** of biological data; improved preprocessing throughput by **5x**.
- Trained and evaluated supervised models for sequence classification; productionized inference with modular APIs for downstream analytics.
- Integrated **15+** external bioinformatics sources; enforced schema validation and reproducible pipelines for model retraining.

Quant Projects

Statistical Arbitrage *(Python: pandas, statsmodels, scikit-learn)* github.com/achntj/statistical-arbitrage

- Implemented Engle–Granger tests and K-means clustering to find mean-reverting pairs from a large equity universe.
- Built an end-to-end backtesting engine with transaction cost modeling, position sizing, and risk controls.
- Added ML-based spread predictors (Random Forest) and performance diagnostics: Sharpe, Sortino, drawdown.
- Performed robustness checks: walk-forward validation, parameter sensitivity, and stress under different market regimes.

Multi-Asset Optimization Research *(Python: cvxpy, NumPy/pandas)* github.com/achntj/Quantitative-Strategies

- Constructed a diversified 29-asset universe (US/global equity, sector ETFs, rates/credit, TIPs, commodities, REITs).
- Solved efficient frontiers and tangency portfolios with/without shorting and with a short-limit; integrated T-bills.
- **Out-of-sample (OOS) test (2024–2025):** applied no-shorting tangency weights to hold-out period; achieved **≈21%** annualized return, **≈10%** vol, **Sharpe ≈1.95**.
- Added practical constraints: turnover penalty, volatility cap (15%), sector caps; produced weight decomposition and contrib-to-risk report.

Education

Arizona State University Tempe, AZ

B.S. Computer Science; B.S. Economics ***GPA: 4.15*** *Dean's List (all semesters)* *Aug 2022 – May 2026*

- **Coursework:** Probability; Applied Regression & Data Analytics; Introductory Statistics; Linear Algebra; Calculus III; Financial Economics; **Portfolio Engineering**; Data Structures & Algorithms; **Game Theory**.

Leadership

President, Sun Devil FinTech Club

- Lead workshops and projects on quant/ML topics (optimization, time series, backtesting); organize speaker series and code reviews for student projects.

Skills

- **Programming:** Python (NumPy, pandas, statsmodels, scikit-learn), C++; SQL; Bash.
- **Quant/Math:** Probability & Statistics, Time Series, Optimization, Risk (VaR/CVaR), Stochastic Calculus.
- **Data/Systems:** Git, Docker, Linux, PostgreSQL; CI/CD (GitHub Actions), AWS.