Alexander Hahn

Quantitative Research & Trading

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Systematic equities researcher and portfolio manager building forecasting and portfolio-construction systems. Experience spans alpha development, research evaluation, and live trading.

EDUCATION

Cornell University May 2014
Bachelor's in Mathematics, concentration in Mathematical Physics

EXPERIENCE

PharVision Advisers May 2024 – Sep 2026
Quantitative Portfolio Manager Miami, FL

- Built the core walk-forward backtesting and forecasting pipeline from scratch over existing data/ETL infrastructure, with hyperparameter tuning, refitting, and out-of-sample evaluation.
- Developed approximately ten equity signal families; selected and integrated researcher-contributed inputs into regularized return models.
- Built portfolio optimization using BARRA's USE4S, USFAST, and GEM3 for risk modeling and style/industry factor constraints; translated forecasts into target portfolios balancing risk, turnover, and transaction-cost assumptions.
- Automated production model refreshes in Airflow; built research diagnostics in Python, Polars, and Dash.
- Collaborated with execution and broker teams on execution migration and launch of an internally netted sleeve in the firm's central book.
- Generated approximately 3% cumulative return after trading costs over roughly six months of live sleeve trading, with an approximately 4% high-water mark and a 2.06 annualized Sharpe ratio.

Bot Lab LP (Schonfeld external manager) Apr 2019 – May 2023
Quantitative Trader New York, NY

- Helped build and launch a US equity statistical arbitrage strategy with a $100 million initial allocation.
- Developed and deployed signal families in Haskell and Python; researched regularized signal combinations and portfolio optimization in R using MOSEK.
- Executed $12 billion through four brokers across approximately 4,000 US equities, with final review and approval responsibility for trading baskets.
- Researched broker/algorithm allocation, auctions, and trading schedules; used transaction-cost analysis to inform execution and portfolio decisions.

Bridgewater Associates Dec 2016 – Mar 2019
Investment Engineer & Production Integration Engineer Westport, CT

- Led six engineers supporting backtesting, signal-generation, and diagnostic platforms; extended research APIs and supported production investment processes.
- Replaced manual Brazilian options/futures data workflows with automated volume, open interest, and Greek estimates.

Nomura Aug 2014 – Nov 2016
Technology Analyst New York, NY

- Helped automate equity-linked note valuation, coupon analysis, lifecycle processing, and hedging for a book of 24 large-notional notes.

SELECTED PERSONAL PROJECTS

Agent development workflows Built planning, agent invocation, monitoring, and review workflows for Claude Code and Codex; use them across personal software and research projects.

Music software & ML Built an audio-to-score application with editable notation, an AI assistant, and tools for replayable transcription experiments and evaluation.

SKILLS & TECHNOLOGIES

Programming Python, R, C++, Haskell
Research GLM, regularized regression, signal ensembles, walk-forward validation, risk modeling, CVXPY, MOSEK
Systems Polars, Delta Lake, scikit-learn, Airflow, Dash/Plotly, Docker, Git, Linux, AWS
Applied AI LLM APIs, agent orchestration, AI-assisted development, model evaluation