

JOSEPH W. PLATTA

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Quantitative researcher focused on predictive signals, systematic equity strategies, statistical arbitrage, and equity/volatility modeling. Georgia Tech M.S. Machine Learning, 4.0. Builds Python/SQL research pipelines for backtesting, walk-forward validation, risk modeling, and experiment tracking; decade of software engineering experience with data-intensive systems.

QUANTITATIVE RESEARCH EXPERIENCE

Independent Quantitative Researcher *Chicago, IL*

Aug 2025 – Present

- Constructed 7-sleeve dollar-neutral statistical-arbitrage portfolio across S&P 500 equities combining momentum, mean-reversion, relative-value, and event-driven signals; achieved **1.9 net Sharpe** after 10 bps costs with profitable out-of-sample performance via regime gating and volatility-targeted risk scaling.
- Built full-cycle research infrastructure for systematic equity and derivatives strategies, turning market data into versioned datasets, notebook-ready inputs, reusable feature pipelines, backtests, and MLflow-tracked experiments from hypothesis generation through walk-forward and out-of-sample validation. (Python, Ruby, SQLite, S3, Streamlit)
- Developed predictive regime model for systematic SPX volatility strategies across **1,000+** executed positions using realized volatility, VIX term structure, overnight gaps, and intraday movement features; achieved **~71% accuracy** forecasting adverse regimes for position sizing and risk control.
- Trained a gradient-boosted regressor to estimate missing SPX option deltas for historical backtests when licensed option-chain data lacked Greeks, surfacing data-quality and modeling issues across strikes and expiries.

SOFTWARE ENGINEERING EXPERIENCE

Founding Engineer – LeadersAtlas *Austin, TX*

May 2021 – Jul 2025

- First technical hire; independently designed end-to-end data workflows, internal tooling, and client-facing applications under ambiguous, fast-evolving requirements.
- Developed an LLM-enabled application that transformed semi-structured responses into skill-share presentations using configurable prompt orchestration, response-labeling pipelines, retrieval-augmented context, and expert-in-the-loop review workflows, reducing content production from **1-2 weeks** to a single **~20-minute** interview.
- Built reporting and dashboard infrastructure for enterprise clients including HP, integrating survey-collection workflows and centralized data pipelines that helped secure a **\$1.5M** contract.

Senior Software Engineer – Procore Technologies *Santa Barbara, CA*

Jul 2018 – Apr 2021

- Designed and implemented bi-temporal financial reporting system enabling point-in-time reconstruction of project budgets, transforming complex derived financial state from large query workflows into persisted temporal models through materialized views and historical backfilling.
- Led a cross-team data-integrity initiative adding **300** foreign-key constraints on 130 PostgreSQL tables, strengthening referential integrity and cross-tenant isolation without disrupting feature development.
- Contributed to large-scale financial data modeling and query optimization within the Construction Financials suite, supporting a **\$100M+** ARR product built on a decade-old Rails monolith.

Developer – Palmer Consulting Group *Chicago, IL*

May 2015 – Jun 2018

- Built integrations across payroll, accounting, and construction ERP systems that automated timecard-to-general-ledger reconciliation eliminating manual financial reporting processes.
- Delivered custom reporting, ETL pipelines, and data workflows, building a foundation in relational data modeling and enterprise application integration.

Adjunct Professor of Philosophy – College of Lake County *Chicago, IL*

Aug 2013 – May 2016

- Designed curricula and taught formal logic (symbolic, sentential, predicate calculus with quantification).

EDUCATION

Georgia Institute of Technology – *M.S. Computer Science (Machine Learning)*

GPA 4.0 | 2023

Brandeis University – *M.A. Philosophy*

GPA 3.8 | 2012

Marquette University – *B.A. Philosophy, summa cum laude, Phi Beta Kappa*

GPA 3.9 | 2010

- James H. Robb Memorial Award (top graduating philosophy student), Marquette University, 2010

SKILLS & INTERESTS

Research: Predictive signal research, systematic strategy design, statistical arbitrage, time-series analysis, backtesting, walk-forward & out-of-sample validation, volatility & regime modeling.

Programming & ML: Python (Pandas, NumPy, SciPy, scikit-learn, PyTorch), SQL, Ruby, C, JavaScript; feature engineering, probabilistic modeling, classification, model validation.

Data & infra: PostgreSQL, SQLite, ETL pipelines, large research datasets, relational & temporal data modeling, research & backtesting systems.

Interests: Marathoning, analytic philosophy, trading, LLMs.