Lucas Bhatia

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EDUCATION

University of Kentucky** - Lexington, KY

- B.S. Mathematical Economics, GPA 3.528 | Dean's List | Expected Fall 2026 / Spring 2027
- Treasurer - Math Club | Member - Economics & Finance Society | UK Innovate (AI-Assisted Development Presentation)
- Relevant Coursework: Time Series Analysis, Calculus I-IV, Linear Algebra, Stochastic Processes, Econometrics, Machine Learning, Probability & Statistics, Decision Making Under Uncertainty, Cost-Benefit Analysis, Intermediate Macroeconomics

TECHNICAL SKILLS

- Languages: Python, Swift, TypeScript, JavaScript, SQL
- Frameworks: Next.js, React, SwiftUI, Node.js, Tailwind CSS
- Data & ML: pandas, NumPy, scikit-learn, arch (GARCH), statsmodels, TensorFlow
- Infrastructure: Supabase (PostgreSQL + Auth + Realtime), Vercel, Railway, GitHub Actions CI/CD
- Tools: Git, Xcode, REST APIs, WebSockets, Docker, Stripe API
- Quantitative: Portfolio optimization, risk modeling (VaR/CVaR), backtesting, algorithmic trading systems

PROJECTS & VENTURES

IOSTrade - Algorithmic Trading Platform

Founder & Lead Developer | 2025 - Present

- Built a full-stack algorithmic trading engine deployed on Railway running 7 concurrent strategies (trend-following, mean reversion, carry, volatility, cross-asset, ML-based) with automated execution via Alpaca API.
- Engineered real-time risk management pipeline with position concentration limits (4% per asset), Kelly criterion sizing (20% fraction), trailing stops, and holiday/after-hours market logic.
- Developed iOS companion app in SwiftUI for live portfolio monitoring, strategy performance dashboards, and push notifications on trade execution.
- Implemented ML strategy layer using historical price data, technical indicators, and cross-asset signals for adaptive signal generation.
- Managing ~$97K paper trading portfolio with 90%+ engine cycle success rate and sub-8ms database latency.

SlipEdge - S

Founder & Lead Developer | 2025 - Present

- Designed and built a Bloomberg-style web application (Next.js + Tailwind CSS + Supabase) featuring live odds boards, bet slip builder, bankroll management, social feeds, and analytics dashboards.
- Developed companion iOS app (SwiftUI) with 98 unit tests covering odds formatting, parlay calculations, bet validation, input sanitization, and Apple Sign-In flows.
- Built automated odds ingestion pipeline pulling from The Odds API -> Supabase with Vercel cron jobs, serving real-time spreads, totals, and moneylines across NBA, NFL, MLB, and NHL.
- Implemented enterprise-grade offline mode with network monitoring, cached data indicators, and graceful degradation for unreliable connections.

CB Service

Developer | 2025 - Present

- Building a full-stack web portal (Next.js + Supabase) for a customs brokerage handling $10M+ in annual cargo, featuring shipment tracking, document exchange, client task management, and integrated payments.
- Implemented Row-Level Security policies, input sanitization across 7 API routes, rate limiting on 6 endpoints, and audit logging for regulatory compliance.

Quantitative

Independent | 2025

- Volatility Forecasting & Trading Simulation: Engineered GARCH(1,1) model to forecast daily/annualized volatility; backtested volatility-targeting strategies stabilizing annualized vol at ~10% with Sharpe and drawdown analysis.
- Multi-Asset Portfolio Analysis: Built 3-stock portfolio analysis system computing Alpha, Beta, Sharpe/Sortino/Treynor ratios, Max Drawdown, VaR, and CVaR for comprehensive risk-adjusted performance assessment.
- Stock Price Prediction (AAPL): Designed linear regression model integrating technical indicators (5/20-day MAs, lagged returns, S&P 500 cross-market variables); validated with VIF, Breusch-Pagan, Durbin-Watson tests; evaluated via MSE/RMSE with in-sample and out-of-sample accuracy.

PROFESSIONAL EXPERIENCE

Import / Export Specialist - CB Service Broker

July 2017 - Present
- Manage $10M+ in cargo shipments across truck, ocean, and air freight with full regulatory compliance.
- Perform HTSUS tariff classification, prepare Importer Security Filings, and conduct self-audits.
- Maintain customs clearance documentation and coordinate with brokers, carriers, and government agencies.

Men's Bask

August 2021 - April 2022
- Supported D1 athletic staff in player preparation, training logistics, and recovery operations.
- Filmed practices and facilitated data-driven analysis for coaching staff game planning.

Restaurant

October 2022 - February 2023
- Coordinated guest seating and managed reservation flow for 2,000+ passenger cruise ship dining operations.
- Collaborated with cross-functional teams to reopen and staff multiple venues post-COVID.

Team Meml

February 2020 - June 2021
- Awarded Chick-fil-A Remarkable Futures Scholarship in recognition of performance and leadership.

AWARDS & RECOGNITION

- Dean's List - University of Kentucky (Multiple Semesters)
- Chick-fil-A Remarkable Futures Scholarship