

Michael Hanko

Full-Stack AI Engineer · AI Agents & Quantitative Trading Systems · Data Integration

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SUMMARY

Founder of Momentum Phinance and the builder behind [TraderMatrix.pro](https://tradermatrix.pro) — an institutional-grade options trading platform carrying live order flow, a real-time dealer gamma engine, seven screeners, and a voice AI assistant, plus [Vespryx](https://vespryx.com), the Chrome extension that puts the same dealer structure on a trader's own TradingView charts. Both taken solo from first commit to paying subscribers. Fifteen years in enterprise data came first: ERP implementations, systems integration, and analytics across Dynamics, Salesforce, and SQL Server. Today I build AI agents and production quantitative trading systems in Python, with 60+ open-source repositories including an MCP server that hands AI assistants live market data and technical analysis.

TECHNICAL SKILLS

Languages	Python, SQL, TypeScript / JavaScript, Bash, Rust, Go, HTML/CSS, Pine Script
AI & Agents	MCP server development, Claude / Gemini / Vertex AI, agent tooling & orchestration, RAG
Data	Pandas, NumPy, SQL Server, SQLite, Firebase, SSIS, SSRS, Power BI, Looker Studio, ETL design
Backend & Web	FastAPI, Next.js, React, Streamlit, NiceGUI, Tauri, REST API design, Apache, WordPress
Infrastructure	Docker, Linux, GCP, Vercel, VPS administration, GitHub Actions CI/CD, Git, SSL/reverse proxy
Enterprise	Dynamics GP, Dynamics 365, Salesforce, Tibco Scribe, SAP, Oracle, Lawson, Epicor, IFS
Quantitative	Options pricing (Black-Scholes, Greeks), realized-volatility modeling, backtesting, risk management

EXPERIENCE

Founder & Quantitative Developer — [Momentum Phinance](https://tradermatrix.pro) Nov 2025 – Present
Milwaukee, WI · Self-employed

- Designed, built, and operate [TraderMatrix.pro](https://tradermatrix.pro), a real-time options platform: live flow (sweeps, blocks, golden sweeps), a dealer gamma-exposure engine, sector-flow analysis, seven screeners, trade journal and wheel tracker, and Arya — a voice AI assistant wired to live account positions. One \$49.99/month subscription, nothing sold as an add-on.
- Built and ship [Vespryx](https://vespryx.com), a Chrome extension that paints dealer gamma walls, pins, and flips onto a trader's own TradingView charts from real open-interest data, repainting live as new chain data lands, and scores rich-versus-cheap contracts directly on Fidelity option chains. \$34.99/month standalone.
- Shipped three further products alongside them: Ghost Alpha Dossier, a daily market-intelligence report driven by a 16-stage GitHub Actions pipeline (technical analysis, institutional flow ingestion, market-regime detection, AI narrative generation); TickerTrace Pro, for ETF holdings transparency; and Alpha Momentum University, a free trading curriculum.
- Architected a split-stack deployment: Next.js on Vercel, FastAPI + Docker on VPS behind an Apache SSL proxy, with Firebase authentication and Stripe billing.
- Authored the VoPR options engine — a four-model realized-volatility ensemble (Parkinson, Garman-Klass, Rogers-Satchell, close-to-close) with Black-Scholes Greeks and an A–F contract grading scheme.
- Published open-source AI tooling adopted by the developer community — an MCP server for market data and a library of agent skills for trading research — and write a technical newsletter on quantitative research and building with agents.

Futures Trader — [Topstep](https://topstep.com) Mar 2025 – Present
Remote

- Trade funded futures capital on intraday strategies under firm-enforced drawdown and risk limits.

Data & Analytics Consultant — [Independent](https://independent.com) Dec 2024 – Present

- Deliver reporting and analytics engagements across SSRS, Power BI, Google Sheets, and Looker Studio — from requirements through build and end-user training.
- Write Python and shell tooling that lets AI agents act on reporting output rather than merely display it.

Web Developer — [Freelance](https://freelance.com) May 2018 – Mar 2026

- Built and maintained small-business and personal sites in HTML, CSS, PHP, JavaScript, Go, WordPress, and Hugo — including [SmokedAt225.com](https://smokedat225.com), judithdineenphotography.com, and mphanko.com.

Technical Consultant / Data Consultant — Origami Risk

Mar 2022 – Dec 2024

Milwaukee, WI

- Designed system architecture for insurance risk-platform implementations and presented those decisions to senior consultants and client executives.
- Built data integration pipelines, conversions, and unit tests moving client data into the platform.
- Served as the conduit between customer needs and the product roadmap, driving feature requests and gap analysis.
- Owned project plans and drove accountability across multi-party implementation engagements.

Data Integration Specialist — Zywave

Apr 2020 – Mar 2022

Milwaukee, WI

- Mapped and synchronized data between web applications using Dynamics 365, Salesforce, and Tibco Scribe.
- Provided technical expertise to Zywave partners through implementation, troubleshooting, and configuration support.
- Built Power BI reporting and led cross-department training for the Data Services team.

Support Analyst → Solutions Consultant — KEY2ACT (WennSoft)

May 2014 – Feb 2020

Milwaukee, WI

- Pre-sales engineering across the Dynamics GP ecosystem — job cost, service management, and field service — running discovery, demos, and technical presentations alongside sales teams and resellers.
- Maintained a personal demonstration environment and built sample data sets tailored to each prospect.
- Started as Support Analyst: resolved application incidents across WennSoft products and Dynamics GP, performed QA on major releases and service packs, and implemented API-based automation for the support center.

Senior Representative, Accounts Payable — Johnson Controls

Apr 2013 – May 2014

- Worked in a multi-ERP environment — SAP, Oracle, Lawson, NxGen — processing, auditing, and analyzing supplier invoices.
- Coached the department's Office 365 migration, stood up SharePoint sites and training, and drove backlog reduction during the UPG invoice-processing transition through targeted reporting.

Accounts Payable Accountant — Merge Healthcare

Jun 2010 – Apr 2013

- Multi-ERP accounting across IFS, Epicor, QuickBooks, and Dynamics GP — journal entries, balance sheet reconciliation, accruals, SOX compliance, and year-end 1099 processing.

SELECTED OPEN-SOURCE & PRODUCT WORK

TraderMatrix.pro · tradermatrix.pro — flagship product

Professional options trading platform. Live options flow, dealer gamma across major futures, sector-flow analysis, seven screeners, earnings and insider intelligence, and the Arya voice AI assistant. Next.js front end, FastAPI services, brokerage-integrated execution.

Vespryx · vespryx.com — “dealer structure on the charts you already use”

Chrome extension overlaying dealer gamma walls, pins, flips, expected move, and max pain onto TradingView — consistent from the 1-minute to the daily chart, with a regime panel showing whether dealers are damping or amplifying moves.

momentum-mcp ★ 26 · github.com/mphinance/momentum-mcp

MCP server that gives an AI agent a Bloomberg-style terminal — screening, OHLCV, 24 technical indicators, chart generation, and news, as agent tools.

alpha-skills ★ 22 · github.com/mphinance/alpha-skills

Library of AI agent skills for backtesting, edge research, market analysis, and strategy design, targeting Claude and Gemini agents.

TickerTrace Pro · tickertrace.pro

ETF transparency platform tracking exact holdings and daily institutional changes for YieldMax, ARK, Avantis and other opaque funds.

awesome-broker-mcp & traderdaddy-bridge · github.com/mphinance

A verified directory of broker MCP servers, plus a universal adapter normalizing US equity and options APIs to one interface.

EDUCATION

B.S., Business Administration & Mathematics — [University of Wisconsin–Stevens Point](https://www.uw-stevens.edu)

2002 – 2006