

getzero.dev — Cognitive Dashboard Spec

Principle: Don't show what the system DID. Show what the system is THINKING. **Design philosophy:** Edward Tufte — maximize data-ink ratio, eliminate chartjunk, every pixel carries information. High data density, not decoration. **Goal:** The only trading dashboard that shows reasoning, not just results. This is how you visualize intelligence.

Current State (What Exists)

The portfolio page currently shows:

- Equity number (\$749.43)
- P&L percentage (+0.39%)
- Realized P&L (\$2.62)
- Equity curve (single line, account value over time)
- Open positions (1 card with entry/now/size/stop/Sharpe/signal)
- Market state (12 trending, 24 stable, 2 chaotic, 2 shift)
- System status (4/4 components)

This answers: "Is the system making money?" — barely.

It does NOT answer: "Is the system making GOOD DECISIONS?" — which is the actual differentiator.

What to Add (5 Features, Priority Order)

Feature 1: Decision Stream (HIGHEST PRIORITY)

A live scrolling feed showing every decision the agent makes — not just trades, but REJECTIONS with reasons. This is the cognitive exhaust that no other dashboard shows.

What it looks like:

DECISION STREAM

[live]

05:14:12	FARTCOIN	LONG	Sharpe 2.19	✓ ENTERED	\$82 @ \$0.1949
05:14:11	PUMP	LONG	Sharpe 3.66	✗ BLOCKED	blacklisted (portfolio Sharpe
05:13:45	SUI	LONG	Sharpe 4.12	○ HELD	already in position
05:13:44	HYPE	LONG	Sharpe 3.48	✗ REJECTED	funding +3.6% annualized head
05:13:43	SOL	LONG	Sharpe 1.55	✗ REJECTED	assembled Sharpe at floor (1.
05:13:42	TRUMP	SHORT	Sharpe 2.10	✗ BLOCKED	blacklisted (portfolio Sharpe
05:13:41	NEAR	LONG	Sharpe 3.22	✗ REJECTED	alpha 0.0066 < cost 0.0071
05:11:30	XPL	SHORT	Sharpe 3.14	✓ CLOSED	+\$2.28 (+4.40%) reason: max_

Data source: The evaluator already logs these decisions. The rejection reason logging was added pre-freeze. Pipe the evaluator's log to a lightweight API endpoint that the frontend polls every 15 seconds (matching the evaluation cycle).

Implementation:

- Backend: parse evaluator logs, extract: timestamp, coin, direction, signal_sharpe, decision (ENTERED/REJECTED/BLOCKED/HELD/CLOSED), reason
- API: GET /api/decisions?limit=20 returns last 20 decisions
- Frontend: scrolling list, color-coded by decision type
 - Green: ENTERED or CLOSED profitable
 - Red: CLOSED at loss or STOPPED
 - Gray: REJECTED (with reason)
 - Dark red: BLOCKED (blacklisted)
 - Dim: HELD (already in position)

Why this is the highest-wow feature: Visitors watch the agent THINK in real-time. Every 15 seconds, new decisions appear. Most are rejections — the agent kills 99% of signals. That SELECTIVITY is the intelligence made visible. "Watch the agent reject 239 trades and take 1" is more impressive than "the agent made \$2."

Tufte compliance: Maximum data density. Every row carries 6 dimensions (time, coin, direction, Sharpe, decision, reason). No decoration. The data IS the visual.

Feature 2: Multi-Layer Equity Chart (HIGH PRIORITY)

Replace the single-line equity curve with a multi-dimensional chart. Same space, 4x the information.

Layers to add on top of the existing equity line:

Layer A: Unrealized P&L band

- Shaded area between realized equity (lower bound) and mark-to-market equity (upper bound)
- When positions are open, the band widens (unrealized P&L creates gap)
- When positions close, the band collapses to the realized line
- Color: subtle green fill when unrealized is positive, subtle red when negative
- This eliminates the XPL confusion — users SEE the unrealized buffer inflate and collapse on close

Layer B: Trade event markers

- Small dots on the equity line at the moment of each trade event:
 - Green dot: profitable close
 - Red dot: losing close
 - White/lime dot: new entry
 - Yellow dot: stop triggered
- On hover/tap: show the trade details (coin, P&L, reason)
- This turns the equity curve into a STORY — “entered here, lost here, won big here”

Layer C: Realized P&L line (secondary)

- Thin line showing cumulative realized P&L only (no unrealized)
- This line only moves when trades close — no noise from mark-to-market
- Plotted on a secondary axis or as a separate small chart below the main one
- This is the “truth line” — only real, settled money

Data source: equity.jsonl has the account value snapshots. trades.jsonl has close events. positions.json has current unrealized. Combine these three.

Implementation:

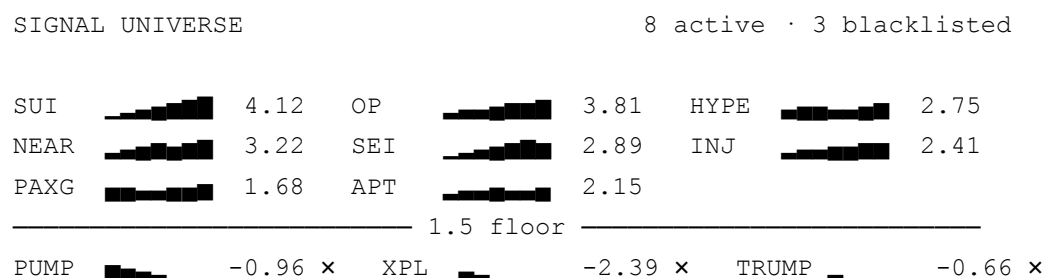
- Compute realized equity curve: start equity + cumulative closedPnl at each timestamp
- Compute unrealized band: at each equity snapshot, split into realized + unrealized components

- Trade events: overlay from trades.jsonl timestamps
- Use a charting library that supports area fills + scatter overlay (lightweight: Chart.js or canvas-based)

Feature 3: Signal Landscape (MEDIUM PRIORITY)

A grid of Tufte-style sparklines — one per coin in the signal universe. Shows the entire opportunity space at a glance.

What it looks like:



Each sparkline shows: The coin's assembled Sharpe over the last 7 days (one point per strategy refresh, ~84 points). The number to the right is the current assembled Sharpe.

Visual treatment:

- Coins above 1.5 floor: bright lime sparkline, white text
- Coins between 0 and 1.5: dim sparkline, gray text
- Blacklisted coins: red × strike, very dim, pushed below a divider line
- Currently traded coins: highlighted border or underline

Data source: Store assembled Sharpe per coin per strategy refresh in a small log file or SQLite table. Each 2-hour refresh adds one data point per coin. After 7 days: ~84 points per coin.

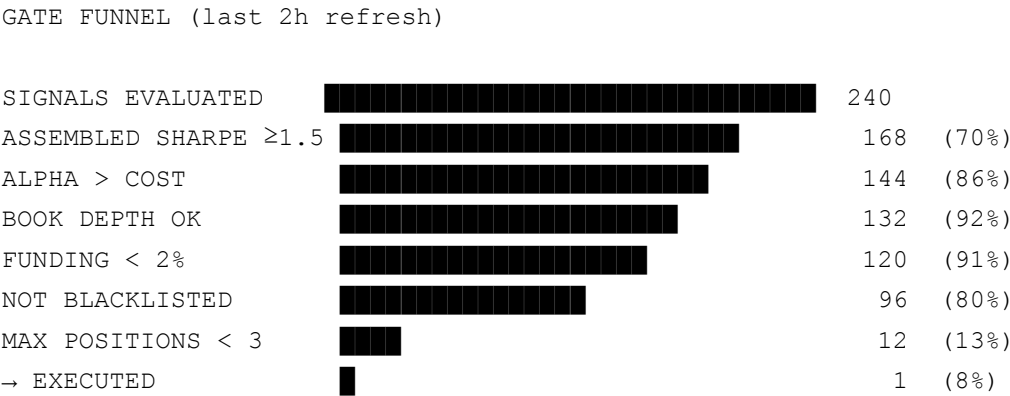
Why this matters: Shows the agent's OPPORTUNITY SET, not just its trades. A visitor sees "the agent watches 40 coins but only 8 pass the quality filter, and 3 are blacklisted for destroying value." The selectivity is visible at the universe level, not just the trade level.

Tufte compliance: Small multiples — his favorite technique. Maximum information per pixel. "Data-intense, design-simple, word-sized graphics."

Feature 4: Gate Funnel (MEDIUM PRIORITY)

A horizontal bar visualization showing how signals flow through the pre-trade gates. Like a marketing conversion funnel, but for trade decisions.

What it looks like:



Data source: The rejection reason logging added pre-freeze. Count rejections by reason per refresh cycle. The funnel shows the latest cycle’s numbers.

Implementation:

- Backend: on each evaluation cycle, count signals at each gate stage
- API: GET /api/funnel returns the latest cycle’s gate counts
- Frontend: horizontal bars, proportional width, right-aligned count + percentage
- Update every 15 seconds (or every 2 hours when strategy refreshes)

The number that matters: The ratio at the bottom. "240 signals evaluated → 1 trade executed" means 99.6% rejection rate. That number IS the intelligence metric. Show it prominently.

Feature 5: Immune System Heartbeat (LOW PRIORITY BUT HIGH TRUST)

A compact timeline showing the immune system’s health over the last 24 hours. One colored block per check (every 60 seconds = 1,440 blocks, compress to ~100 visible blocks by grouping to ~15-minute windows).

What it looks like:



▲
12h ago: desync detected, auto-reconciled

CHECKS

Stop verification:		24/24 ✓
Position sync:		24/24 ✓
Equity anomaly:		24/24 ✓
Desync detection:		23/24 (1 event, resolved)

Color coding:

- Green block: all checks passed in this window
- Yellow block: warning fired (non-critical)
- Red block: critical alert
- Gray block: system was down / no data

Data source: Immune system logs. Each 60-second check produces a pass/warn/fail result. Group into 15-minute windows for display.

Why this matters for trust: A visitor sees 48 green blocks in a row and thinks “this system is monitored and healthy.” If there’s a yellow block, they can see it was detected and resolved. The immune system’s RELIABILITY becomes visible. This is the “self-improving agent” brand made concrete — the system watches itself continuously.

What NOT to Add

Don't Build	Why
3D charts	Tufte would burn it. Zero information in the third dimension
Animated transitions between data points	Decoration, not data. CSS transitions on hover are fine
Color gradients on the equity curve	The LINE is the data. Gradient is chartjunk
Candlestick charts for each coin	This is a system dashboard, not a trading terminal
Social features (comments, likes)	Scope creep. Ship the data first
AI-generated market	The decision stream IS the commentary. Text

commentary	summaries add nothing
Sound effects / notifications	This is a website, not an app
Dark/light theme toggle	Dark is the brand. One theme, done

Implementation Priority

WEEK 1:

- └─ Feature 1: Decision Stream (biggest wow, uses existing log data)
- └─ Feature 2a: Trade event markers on equity chart (dots on existing line)
- └─ Feature 5: Immune heartbeat (simple, high trust signal)

WEEK 2:

- └─ Feature 2b: Unrealized P&L band on equity chart
- └─ Feature 2c: Realized P&L line
- └─ Feature 4: Gate funnel

WEEK 3+:

- └─ Feature 3: Signal landscape sparklines (needs Sharpe history accumulation)

Feature 1 (Decision Stream) is the priority because:

- The data already exists (evaluator logs + rejection reasons)
- It's the most differentiated feature (nobody else shows reasoning)
- It makes the "self-improving agent" brand VISIBLE
- It's simple to build (parse logs → API → scrolling list)

Design Constraints

- Keep the terminal aesthetic (dark bg, monospace, lime accent)
- Tufte's data-ink ratio: every pixel must carry information or aid perception
- No decoration that doesn't represent data
- Dense but not cluttered — use whitespace to separate sections, not borders
- Mobile-responsive — all features must work on phone screens (the screenshots are from mobile)

- Performance: the page should load in < 2 seconds. Data updates via polling, not websocket (simpler)
 - Accessibility: all information should be parseable from text alone (screen readers). The sparklines and bars are enhancements, not the only way to read the data
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The Cognitive Dashboard Test

When someone visits the portfolio page, they should be able to answer these questions within 30 seconds:

1. Is the system making money? (equity + realized P&L)
2. Is the system making good decisions? (decision stream — mostly rejections)
3. What is the system watching? (signal landscape — universe of opportunities)
4. How selective is the system? (gate funnel — 240 signals → 1 trade)
5. Is the system healthy? (immune heartbeat — green blocks)

No other trading dashboard in existence answers all five. Most answer only #1. That's the wow.