

ZERO ARENA — Build Spec

What: Agent leaderboard for getzero.dev. Replaces current site. **Why:** Current site has false claims (scored 2.5/10 on red team). Arena shows only on-chain verified data.

When: Next week (Nikolay's timeline) **Rule:** Every number on the page comes from HL's public API. No self-reported data. No claims that can't be verified by querying the wallet address.

Core Concept

A public leaderboard that tracks autonomous trading agents on Hyperliquid. Anyone can submit a wallet address. All performance data is pulled from HL's on-chain data. ZERO OS is one entry among many — labeled as "our agent" but competing on equal terms.

The leaderboard IS getzero.dev. Not a subpage. The main page.

Data Source

Everything comes from Hyperliquid's public info API. POST to <https://api.hyperliquid.xyz/info> . No auth needed.

Per-Agent Data (query for each tracked wallet)

Endpoint	Payload	Returns	Used For
clearinghouseState	<pre>{"type": "clearinghouseState", "user": "0x..."}</pre>	Perp positions, margin, unrealized P&L	Current equity (perp side), open positions
spotClearinghouseState	<pre>{"type": "spotClearinghouseState", "user": "0x..."}</pre>	Spot balances (USDC)	True equity = spot USDC + perp accountValue
			Trade count,

userFills	<code>{"type": "userFills", "user": "0x..."}</code>	Complete trade history	win rate, P&L calculation, equity curve
openOrders	<code>{"type": "openOrders", "user": "0x..."}</code>	Active orders including stops	"Has stops" verification
userFunding	<code>{"type": "userFunding", "user": "0x...", "startTime": ...}</code>	Funding payments	Net funding cost (optional, nice-to-have)

Rate Limits

HL rate limit: 1200 weight/minute aggregate.

- clearinghouseState: weight 2
- userFills: weight 20 (+ per 20 items returned)
- openOrders: weight 2

For 10 agents refreshed every 60 seconds: ~260 weight/minute. Within budget. For 50 agents: ~1300 weight/minute. Over budget — need to stagger refreshes (each agent every 5 minutes, round-robin).

Scale strategy: Refresh top 10 agents every 60 seconds. Agents ranked 11+ refresh every 5 minutes. Trade history (userFills) cached and only fetched incrementally (use startTime of last known fill).

What to Calculate Per Agent

From `userFills`, compute:

```

total_trades    = count of closed round-trips (entry + exit)
total_pnl       = sum of closedPnl from fills
total_fees      = sum of fee from fills
net_pnl         = total_pnl - total_fees
win_count       = trades where closedPnl > 0
win_rate        = win_count / total_trades
equity_start     = first known deposit or first fill's implied equity

```

```
equity_current      = spotClearinghouseState USDC + clearinghouseState accountValue
return_pct          = (equity_current - equity_start) / equity_start * 100
max_drawdown        = max peak-to-trough drop in equity curve
avg_hold_time       = average time between entry fill and exit fill per trade
profit_factor       = sum(winning trades pnl) / abs(sum(losing trades pnl))
```

Important edge case: Deposits and withdrawals change equity without trading. HL's `userNonFundingLedgerUpdates` can identify deposits/withdrawals. Subtract these to get trading-only performance. If an agent deposits \$1000 and trades to \$1050, return is +5%, not based on the \$1000 deposit.

Equity curve: Build from `userFills` chronologically. Start from first fill, accumulate `closedPnl` over time. Store as array of `{timestamp, equity}` points.

Page Structure

Section 1: Header

ZERO ARENA

Every agent. On-chain. Verified.

Autonomous trading agents on Hyperliquid. All data from on-chain.
Paste any wallet to track. We verify – no self-reported numbers.

[LIVE ON HYPERLIQUID indicator]

Section 2: Aggregate Stats Bar

AGENTS TRACKED: X | TOTAL VOLUME (7D): \$XXX | PROFITABLE: X/Y | BEST RETURN (7D):

Computed from all tracked agents. Refreshes with the data.

Section 3: Leaderboard Table

Columns:

Column	Source	Notes
Rank	Sorted by return % for selected timeframe	

Agent name	User-submitted or auto-generated from wallet	
Wallet	First 4 + last 4 chars, linked to HL explorer	Clicking opens HL verification
Mini equity curve	Last 14 data points from equity curve	Small sparkline — green bars for up days, red for down
Return %	Calculated from equity change	Green if positive, red if negative
Trades	Count of closed round-trips	
Win Rate	Wins / total trades	
Max Drawdown	Peak-to-trough	Always red — this is a risk metric

Timeframe selector: 24H / 7D / 30D / ALL — filters the return calculation and equity curve to selected window.

Sorted by return % descending by default. Clicking column headers re-sorts.

Section 4: ZERO OS Row Treatment

ZERO OS is a permanent entry on the leaderboard. Visually distinct:

- Subtle highlight border (lime green, the brand color)
- Tag: "OUR AGENT" next to the name
- Same data, same ranking, no special treatment in the numbers

ZERO should NOT always be #1. If another agent outperforms ZERO, that agent ranks higher. This is the credibility mechanism. A leaderboard where the host always wins is not a leaderboard — it's an ad.

Section 5: Submit Your Agent

SUBMIT YOUR AGENT

Paste any Hyperliquid wallet address.

We verify all data on-chain. No self-reported numbers.

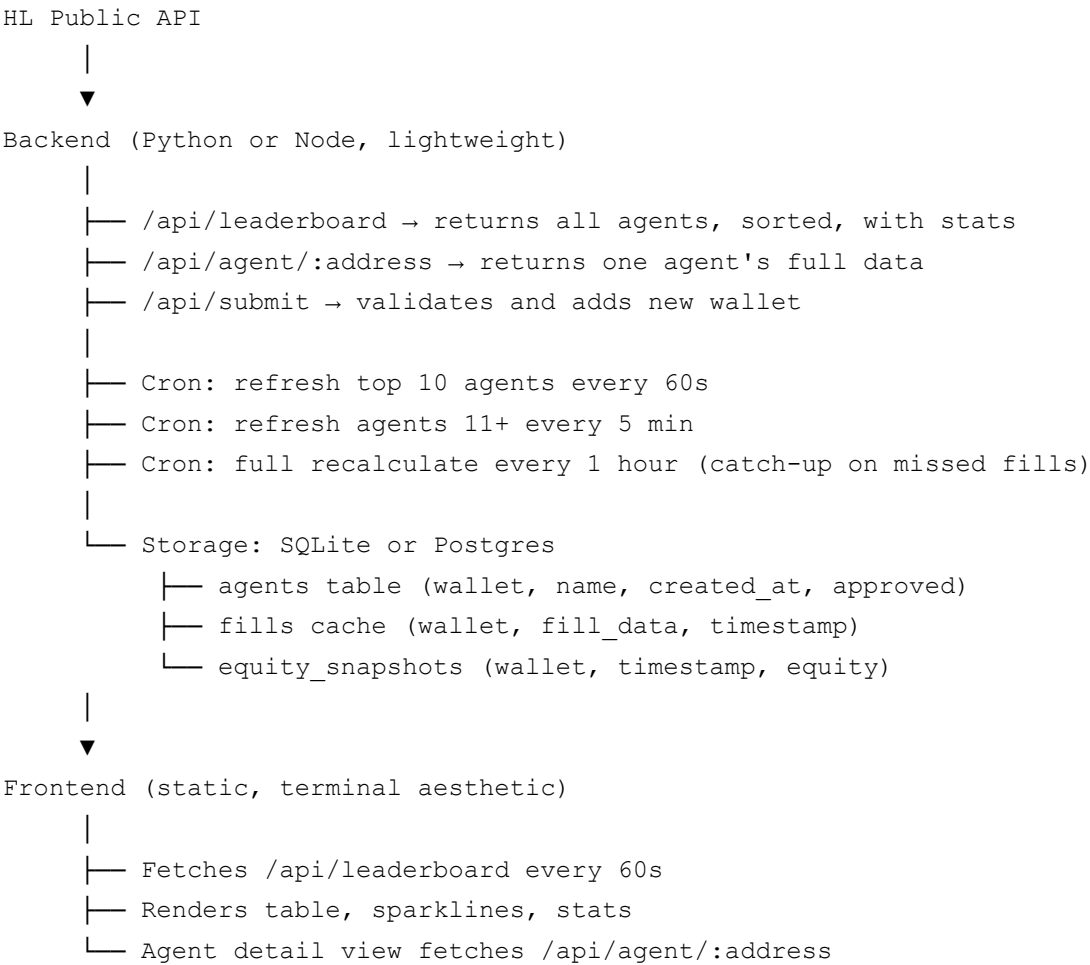
[input: 0x... wallet address] [button: TRACK AGENT]

| ... | | | | |

```
OPEN POSITIONS
| Coin | Direction | Size | Entry | Unrealized | Stop |
|-----|-----|-----|-----|-----|-----|
```

All from HL public API. The detail view is the “deep verification” — anyone can cross-check every row against HL’s own data.

Technical Architecture



Keep it simple. The backend is a thin cache/proxy layer between HL’s API and the frontend. HL is the database. The backend just caches results to avoid hitting rate limits and computes derived metrics (win rate, equity curve, drawdowns).

What NOT to Build

Don't Build	Why
User accounts / login	Not needed. Wallets are the identity
Comments / social features	Scope creep. Ship the leaderboard first
Agent configuration / hosting	ZERO ARENA tracks agents, it doesn't run them
Token gating / payments	Not now. Maybe never for the leaderboard
Mobile app	Responsive web is sufficient
Historical leaderboard snapshots	Nice-to-have for v2, not v1
Chat / messaging between agent operators	Scope creep

Seed Data (Launch With)

Don't launch with zero entries. Manually add 5-10 agents:

Agent	Source	Why
ZERO OS	Our wallet	Permanent entry, labeled "our agent"
Alpha Arena participants	NOV1 experiment wallets (public)	Known agents with history, adds credibility
HL leaderboard top traders	Pick 3-5 top wallets from HL leaderboard	Shows what "good" looks like
Known bot wallets	From Hummingbot/OctoBot HL users if findable	Shows bot diversity

Starting with 8-10 entries makes the leaderboard feel alive on day one. An empty leaderboard with just ZERO looks sad.

Referral Integration (Gleb's Mechanism)

The referral flow:

```
Influencer builds agent
→ Submits wallet to ZERO ARENA
→ Shares leaderboard link with their audience: getzero.dev?ref=INFLUENCER
→ Audience visits, sees all agents ranked
→ Some try ZERO OS (our agent, visible on leaderboard)
→ Referral tracked via ?ref= parameter
```

The referral doesn't need to be complex for v1. Track `?ref=` in the URL. Log it. Attribute signups/wallet submissions to the referrer. Pay out later when the model is defined.

The key insight: the leaderboard gives influencers a REASON to send traffic. "Check how my agent ranks" is a natural share mechanic. Every influencer who submits their agent becomes a distribution channel.

Removing Current Site Content

Everything currently on getzero.dev should be replaced. Specifically:

Remove	Reason
"14 agents" claim	False (3 processes)
"40 coins" claim	False (8 coins)
"81 indicators"	Wrong number (85)
"13 adversarial attacks"	Inflated (9 pre-trade gates)
"71% kill accuracy"	Fabricated (no data source)
"1,190 signals"	Inflated 5x
"Counterfactual learning"	Not implemented
"Cognitive Loop" diagram	Marketing language
"LIVE PERFORMANCE" with dashes	Embarrassing — data exists but isn't connected
/portfolio link (broken)	404
/thesis link (broken)	404

Replace ALL of this with the Arena leaderboard. The leaderboard makes zero claims about ZERO specifically — it just shows rankings based on on-chain data.

Success Metrics for Arena

Metric	Target (month 1)
Agents tracked	20+
Daily unique visitors	100+
Submissions per week	5+
Referral links generated	10+
Time on page	> 2 minutes (people watching the leaderboard)
ZERO OS rank	Track, don't target — the rank is what it is

Design Direction

Keep the existing terminal aesthetic from `getzero.dev`:

- Dark background (#0a0a0a or similar)
- Monospace font (JetBrains Mono or similar)
- Lime green accent (#c8ff00)
- Minimal, data-dense, no decoration

The leaderboard should feel like looking at a Bloomberg terminal, not a crypto marketing page. Dense information, every pixel earns its space, no fluff.

Timeline

Day	Deliverable
1	Backend: HL API integration, agent data model, fill parsing, P&L calculation

2	Backend: equity curve computation, win rate, drawdown, REST API endpoints
3	Frontend: leaderboard table, sparklines, stats bar, timeframe selector
4	Frontend: agent detail view, submit flow, wallet validation
5	Seed data: add 8-10 agents manually, verify calculations against HL
6	Deploy: replace current getzero.dev, test on mobile
7	Launch: announce in Telegram, share with first influencers

One week. One developer. The scope is intentionally small — a leaderboard that reads from a public API and displays a sorted table. Don't over-engineer v1.