

flowchain

— speak to your virtual holdings —



by Jun, Saif and Sid





what it does?

summarises blockchain transactions

analyzes market trends,

delivers smart predictions

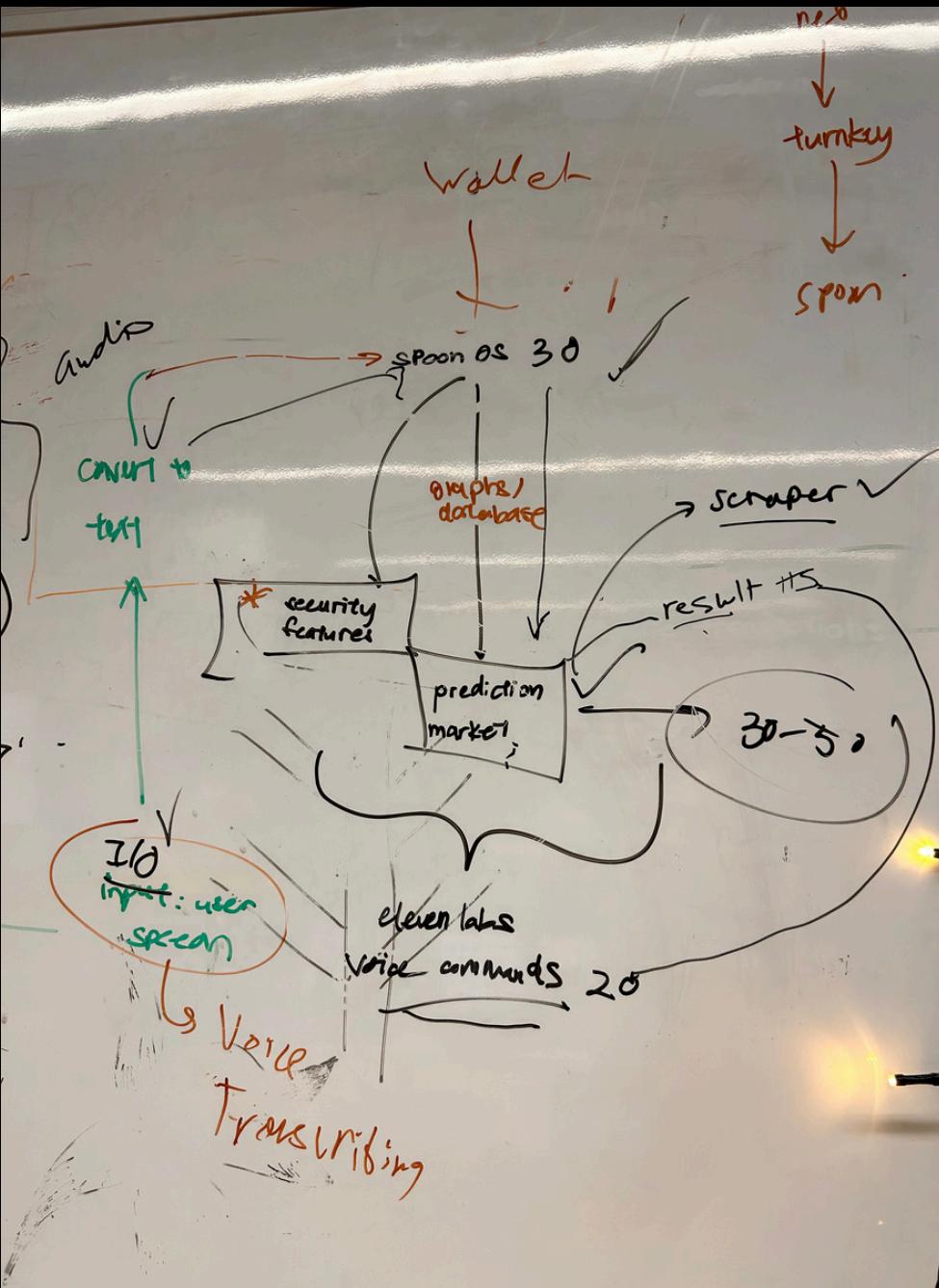
execute trades hands-free

everything you need to be informed and trade

through voice :)

how does it do it? (an overview)

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A. SpoonOS:

- Manages session state, logic, and extracting wallet information.
- Uses the Gemini API to interact, do web research in the market, link the prediction module and other! - detailed in main.py

B. Turnkey API & NEO Integration

- Secure non-custodial key management and on-device signing.
- Native NEO N3 smart contract + GAS support.
- Enables fully hands-free trading commands.

C. ElevenLabs Conversational Interface

- Sub-200ms real-time speech-to-text and text-to-speech.
- Adaptive voice tone based on market conditions :)

D. Market Prediction Engine

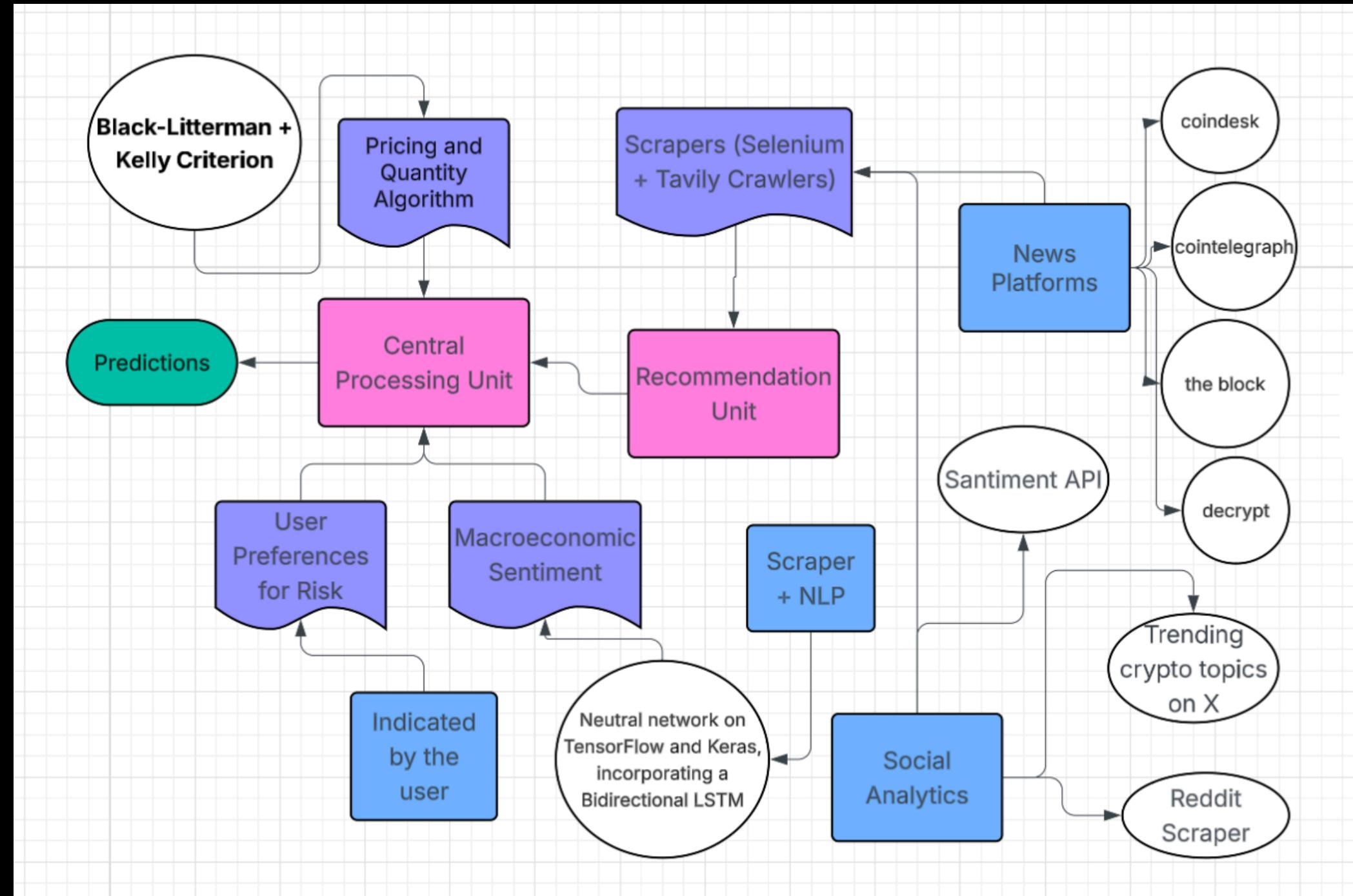
- Detailed next slide!

our intial pipeline idea

we deliver smart predictions

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(not just chatgpt suggestions)



data ingestion from scraped news, social media and cryptocurrency platforms

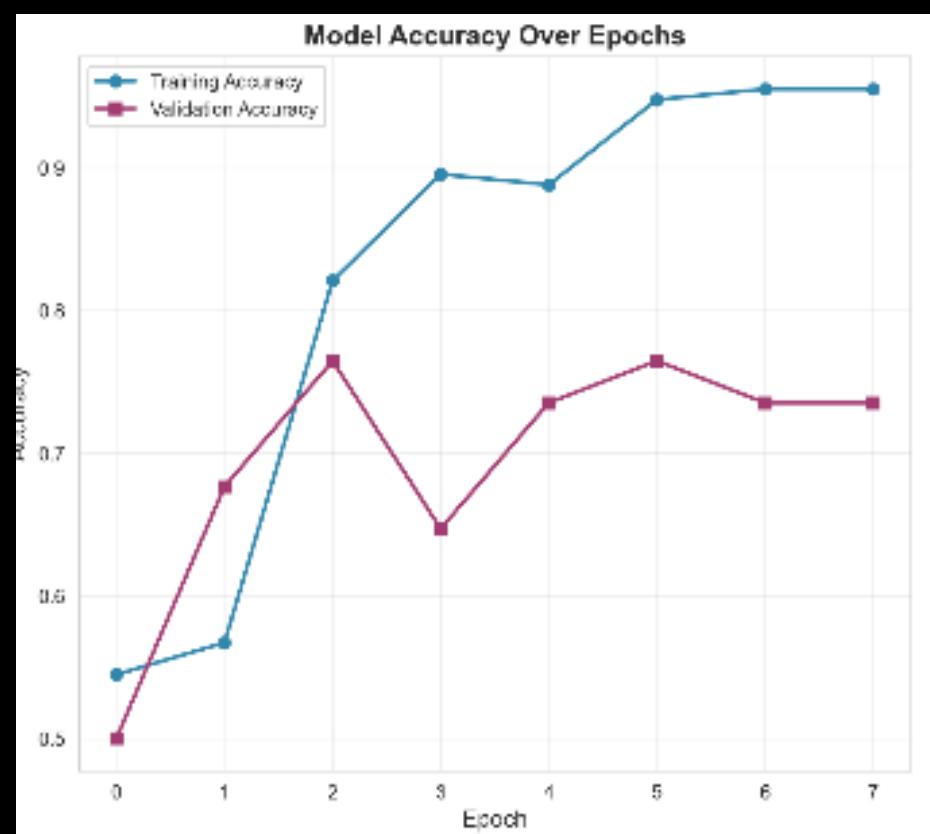
generates recommendations

validates recommendations using user risk, macroeconomic sentiment (based on a tensorflow lstm). and a pricing algorithm

generates final recommended trades which is fed to spoonOS.

our prediction model

LSTM Model for NLP on scraped news titles



Sample output from the prediction model which is then fed into the agent. Agent can call the entire pipeline of predictions

STRATEGIC TRADE PLAN
Generated: 2025-12-07 00:32:25
Risk Profile: HIGH | Macro Sentinel: 0.23

=====

[ETH] SELL/SHORT at \$-177.91
Quantity: 0.0586 ETH recommended
Reason: Sentiment Score -2 with 5 mentions. Macro context is Bearish (0.23).

=====

[BTC] SELL/SHORT at \$-3,000.00
Quantity: 0.0336 BTC recommended
Reason: Sentiment Score -4 with 18 mentions. Macro context is Bearish (0.23).

spoonOS implementation

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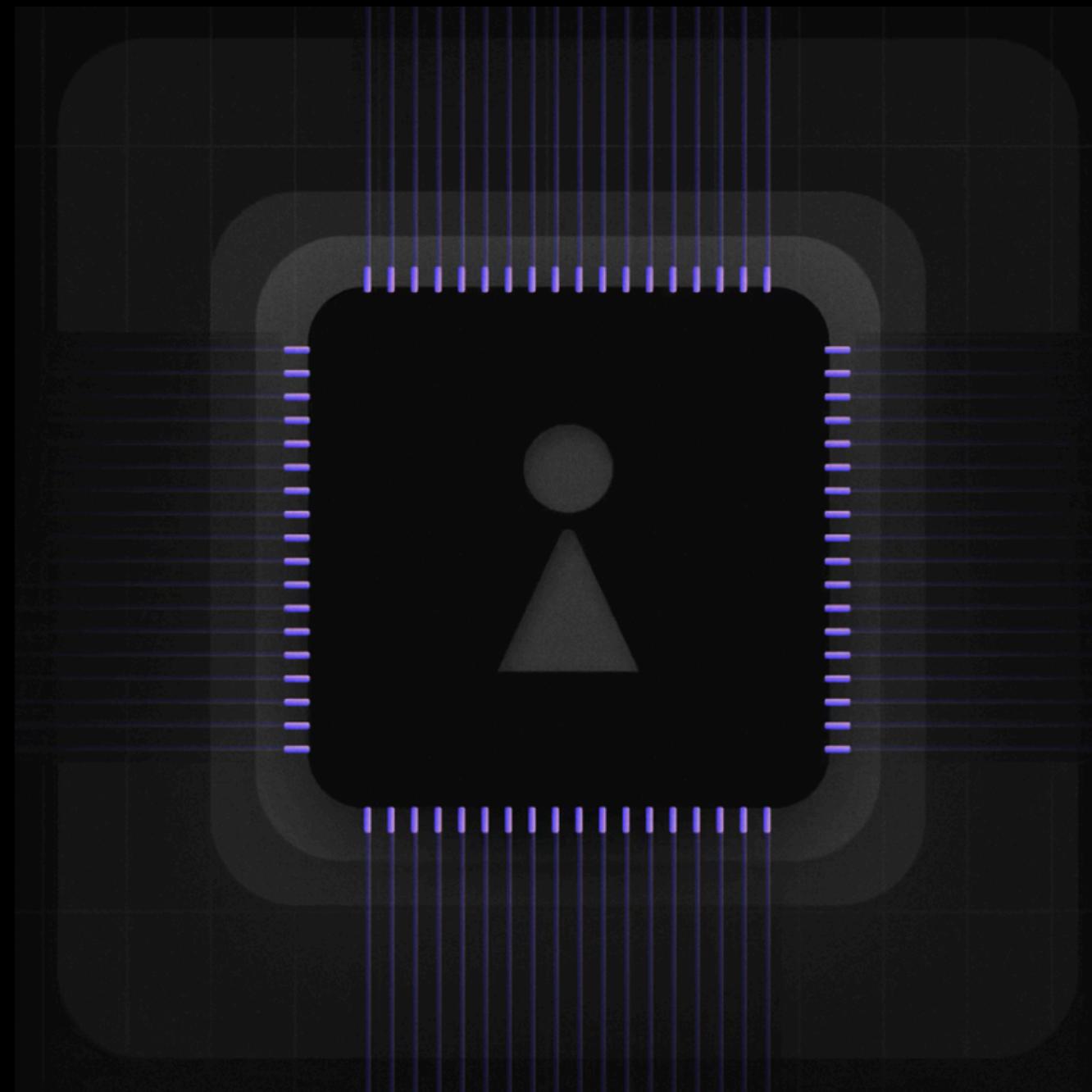


We utilized modified versions of the core SpoonOS agent framework :

- wallet_agent.py for main functionality
- turnkey_demo_reference.py for the turnkey implementation
- spoon_ai.tools extended
- key changes:
 - Monkey-patched the ToolManager for compatibility with custom schemas.
 - Injecting a Trusted Execution Environment (TEE) identity into the system prompt.

turnkey implementation

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Private keys never touch the agent.

- SpoonOS sends only the transaction hash to Turnkey.
- Turnkey signs it under strict policies (limits, rules).
- Signature returned safely for broadcast.

End-to-End Flow

Intent → Agent decides → Build tx → Hash →
Turnkey signs → Broadcast

neo n3 wallet implementation

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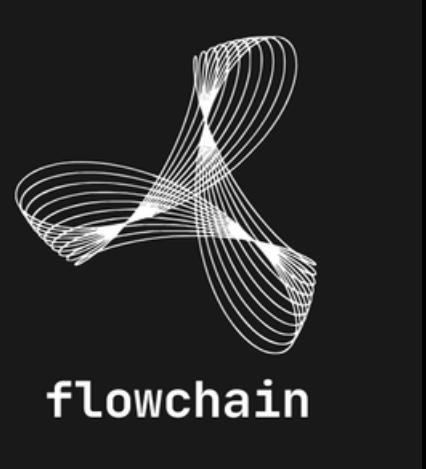
Direct State Interaction:

- neo-mamba SDK allows the agent to read real-time blockchain state rather than relying on cached indexers.

Decentralized Storage (NeoFS):

- NeoFSManager agent allows FlowChain to treat decentralized storage as a native file system logging and backup data to NeoFS containers for immutable, censorship-resistant preservation.





thank you

— we hope you like it! —

