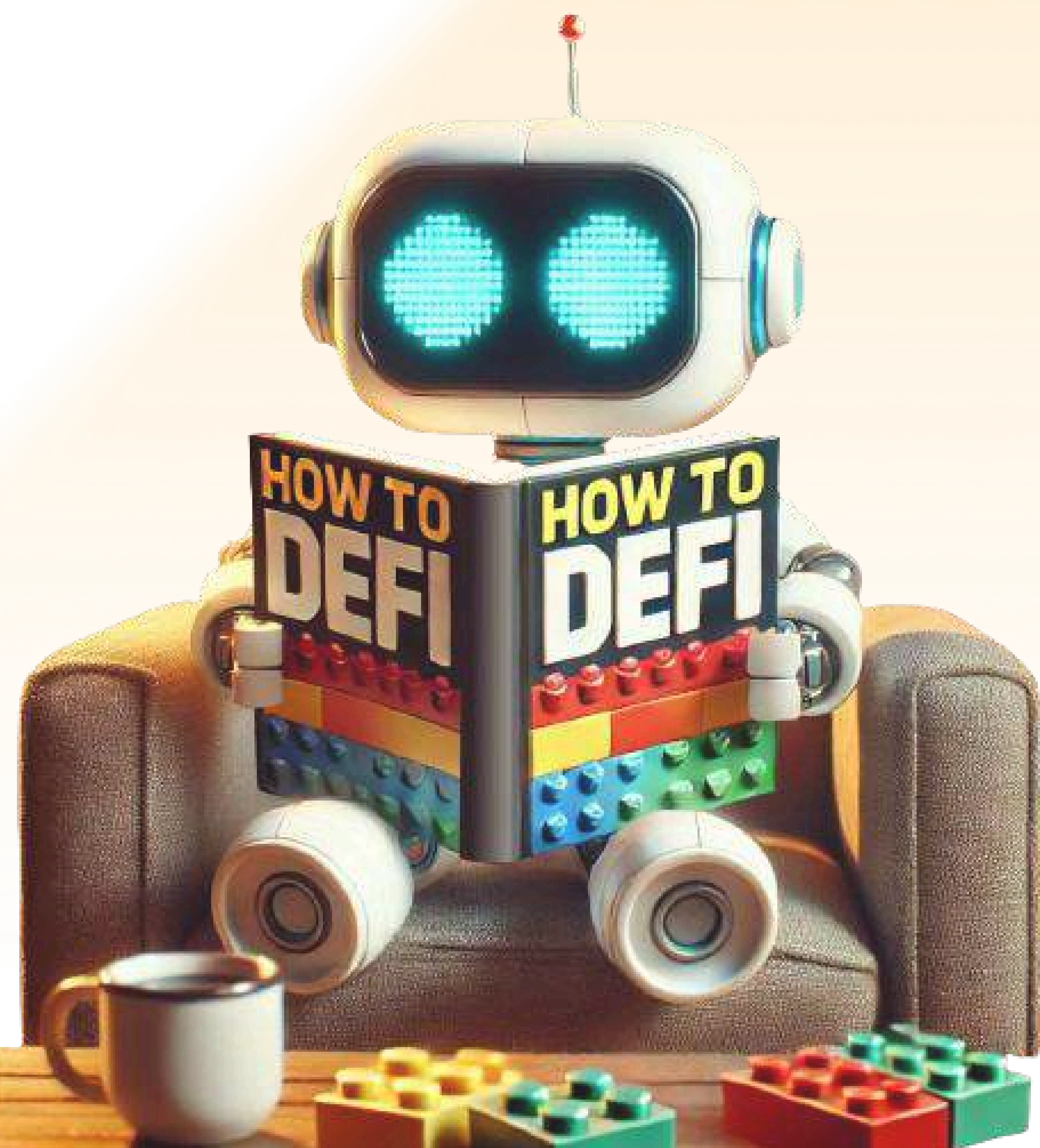


# MetaLamp

## Artificial Intelligence in DeFi: A New Era of Finance

Overview report



January  
2025

The cryptocurrency market is constantly evolving, and decentralized finance (DeFi), once considered a niche segment, has now grown into a complex ecosystem where billions of dollars are transacted daily.

According to current [analytical platforms](#), the total capitalization of the DeFi market exceeds **\$126 billion**, with leading protocols such as Lido and Aave managing assets (TVL) worth \$30.8 billion and \$19.6 billion, respectively.

Artificial intelligence (AI), in turn, has long since moved beyond being a mere trend to becoming a functional tool that fundamentally transforms approaches to automation, data analysis, and risk management. The synergy of AI and DeFi represents a new technological reality, making financial processes both more sophisticated and more comprehensible.

Today, **AI agents** – machine learning-based programs – enable DeFi projects to offer intelligent asset management, automated smart contract monitoring, and even mechanisms for establishing autonomous decentralized organizations (DAOs). At the same time, the AI agent market, according to various platforms, is valued at over **\$14.5 billion**.

### Top Decentralized Finance (DeFi) Coins by Market Cap

Highlights

The Decentralized Finance (DeFi) market cap today is \$128 Billion, a 4.2% change in the last 24 hours. [Read More about Decentralized Finance \(DeFi\)](#)

All Coins Key Statistics

<b>\$127,404,401,507</b> DeFi Market Cap <span style="color: green;">▲ 4.2%</span>	<b>\$402,743,872,681</b> ETH Market Cap <span style="color: green;">▲ 2.5%</span>	<b>31.6%</b> DeFi:ETH Ratio	<b>\$10,862,636,752</b> 24h Trading Volume
<b>3.4%</b> DeFi Dominance (vs. Global)	<b>25.1%</b> Lido Staked Ether DeFi Dominance	<b>\$154,148,503,114</b> Total Value Locked (TVL)	

#	Coin	Price	1h	24h	7d	24h Volume	Market Cap	Last 7 Days
10	Lido Staked Ether STETH	\$3,331.66	<span style="color: green;">▲ 0.2%</span>	<span style="color: green;">▲ 2.4%</span>	<span style="color: green;">▲ 3.9%</span>	\$143,202,491	\$31,925,868,917	
12	Chainlink LINK	\$26.63	<span style="color: green;">▲ 0.2%</span>	<span style="color: green;">▲ 8.4%</span>	<span style="color: green;">▲ 30.0%</span>	\$1,834,768,422	\$16,998,441,973	
28	Uniswap UNI	\$13.55	<span style="color: green;">▲ 0.5%</span>	<span style="color: green;">▲ 1.5%</span>	<span style="color: green;">▲ 2.9%</span>	\$453,290,138	\$8,141,981,648	
29	Hyperliquid HYPE	\$23.90	<span style="color: red;">▼ 0.5%</span>	<span style="color: green;">▲ 13.5%</span>	<span style="color: green;">▲ 5.9%</span>	\$274,519,295	\$7,983,447,229	
35	Aave AAVE	\$364.35	<span style="color: green;">▲ 0.3%</span>	<span style="color: green;">▲ 5.5%</span>	<span style="color: green;">▲ 24.3%</span>	\$1,409,098,484	\$5,484,219,026	
47	Dai DAI	\$1.00	<span style="color: green;">▲ 0.0%</span>	<span style="color: green;">▲ 0.0%</span>	<span style="color: green;">▲ 0.0%</span>	\$267,305,741	\$3,534,914,059	
57	Ethena ENA	\$0.9437	<span style="color: green;">▲ 0.8%</span>	<span style="color: green;">▲ 11.2%</span>	<span style="color: green;">▲ 16.2%</span>	\$862,799,826	\$2,879,144,514	



It's no surprise that major funds, including Binance Labs, Consensys, and Huobi Ventures, are increasingly investing in projects at the intersection of AI and DeFi – they see significant growth and innovation potential in this sector.

However, opportunities also come with risks. Cyberattacks targeting smart contracts and bots, the technical complexity of initial implementations, and legal uncertainty across many jurisdictions remain serious challenges. Moreover, regulators still lack a clear understanding of how to control AI-driven services capable of autonomous actions.

In this report, we'll explore **how exactly AI is transforming DeFi:**

what problems are already being solved, what remains unresolved, and why the synergy of these two rapidly growing areas of the crypto industry could redefine our traditional understanding of finance.

### Top AI Agents Coins by Market Cap

Highlights

The AI Agents market cap today is \$14.5 Billion, a 9.7% change in the last 24 hours. [Read More about AI Agents](#)

All Coins Key Statistics

**\$14,480,277,406**  
Market Cap ▲ 9.7%

**\$2,504,844,550**  
24h Trading Volume

**Trending**

- ai16z \$1.16 ▲ 31.1%
- Virtuals Protocol \$2.82 ▲ 8.4%
- aixbt by Virtuals \$0.66 ▼ 3.7%

**Top Gainers**

- alive \$0.0006196 ▲ 137.4%
- Lola \$0.0003377 ▲ 114.4%
- STORAGENT \$0.0005899 ▲ 109.0%

#	Coin	Price	1h	24h	7d	24h Volume	Market Cap	Last 7 Days
53	Artificial Superintelligence Alliance FET	\$1.29	<span style="color: red;">▼ 1.0%</span>	<span style="color: green;">▲ 10.6%</span>	<span style="color: red;">▼ 0.8%</span>	\$329,579,239	\$3,376,258,075	
56	Virtuals Protocol VIRTUAL	\$2.82	<span style="color: green;">▲ 1.4%</span>	<span style="color: green;">▲ 8.4%</span>	<span style="color: red;">▼ 5.3%</span>	\$364,506,510	\$2,839,589,104	
98	ai16z AI16Z	\$1.16	<span style="color: green;">▲ 0.8%</span>	<span style="color: green;">▲ 31.1%</span>	<span style="color: red;">▼ 13.6%</span>	\$351,645,505	\$1,315,989,818	
172	aixbt by Virtuals AIXBT	\$0.66	<span style="color: green;">▲ 0.8%</span>	<span style="color: red;">▼ 3.7%</span>	<span style="color: green;">▲ 2.6%</span>	\$313,621,028	\$570,392,624	
173	AI Rig Complex ARC	\$0.5547	<span style="color: green;">▲ 1.0%</span>	<span style="color: green;">▲ 35.1%</span>	<span style="color: green;">▲ 50.7%</span>	\$168,102,495	\$564,599,274	
184	Freysa AI FAI	\$0.06311	<span style="color: red;">▼ 0.9%</span>	<span style="color: green;">▲ 32.2%</span>	<span style="color: red;">▼ 6.3%</span>	\$7,511,023	\$517,628,363	
246	OriginTrail TRAC	\$0.7288	<span style="color: green;">▲ 0.1%</span>	<span style="color: green;">▲ 13.4%</span>	<span style="color: red;">▼ 5.6%</span>	\$4,130,697	\$364,782,359	
272	PAAL AI PAAL	\$0.3465	<span style="color: green;">▲ 0.3%</span>	<span style="color: green;">▲ 5.5%</span>	<span style="color: red;">▼ 10.0%</span>	\$9,279,086	\$304,360,657	



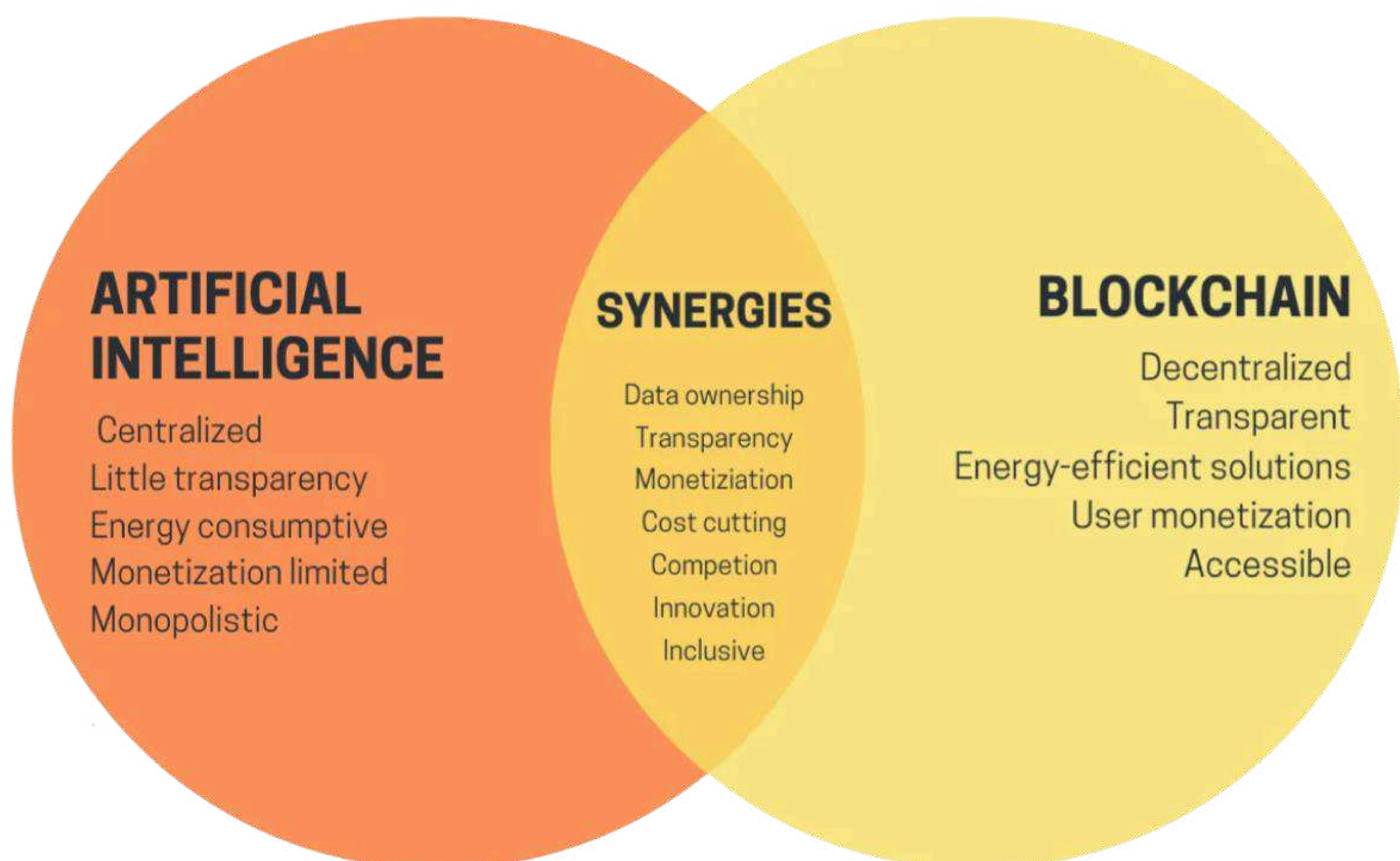
# 1. The basics: DeFi and AI

If you're reading this report, you likely already have a basic understanding of decentralized finance and AI agents. However, to highlight the key points and refresh core ideas, we offer a brief overview.

Decentralized finance (DeFi) is a system of blockchain-based protocols where users manage assets directly, without banks or payment operators. Smart contracts automate operations (lending, exchanging, staking), ensuring transparency and independence.

AI enables the automation of complex processes, processing large datasets, and providing recommendations or independently making decisions. In the crypto industry, this is achieved through AI agents – autonomous programs capable of:

1. Analyzing market data (transactions, social signals) and suggesting optimal strategies.
2. Interacting with smart contracts to execute deals, move funds, and manage liquidity.
3. Adapting to changes in market conditions – for example, reallocating assets between liquidity pools when yields drop.



## 1.2 DeFi and AI synergy

To clearly illustrate which DeFi challenges are addressed with the help of AI agents, we've compiled a table highlighting the market's primary **pain points** and the corresponding mechanisms that help overcome them. Below, you will find a more detailed explanation of how artificial intelligence removes barriers and makes decentralized finance safer, more accessible, and more efficient.

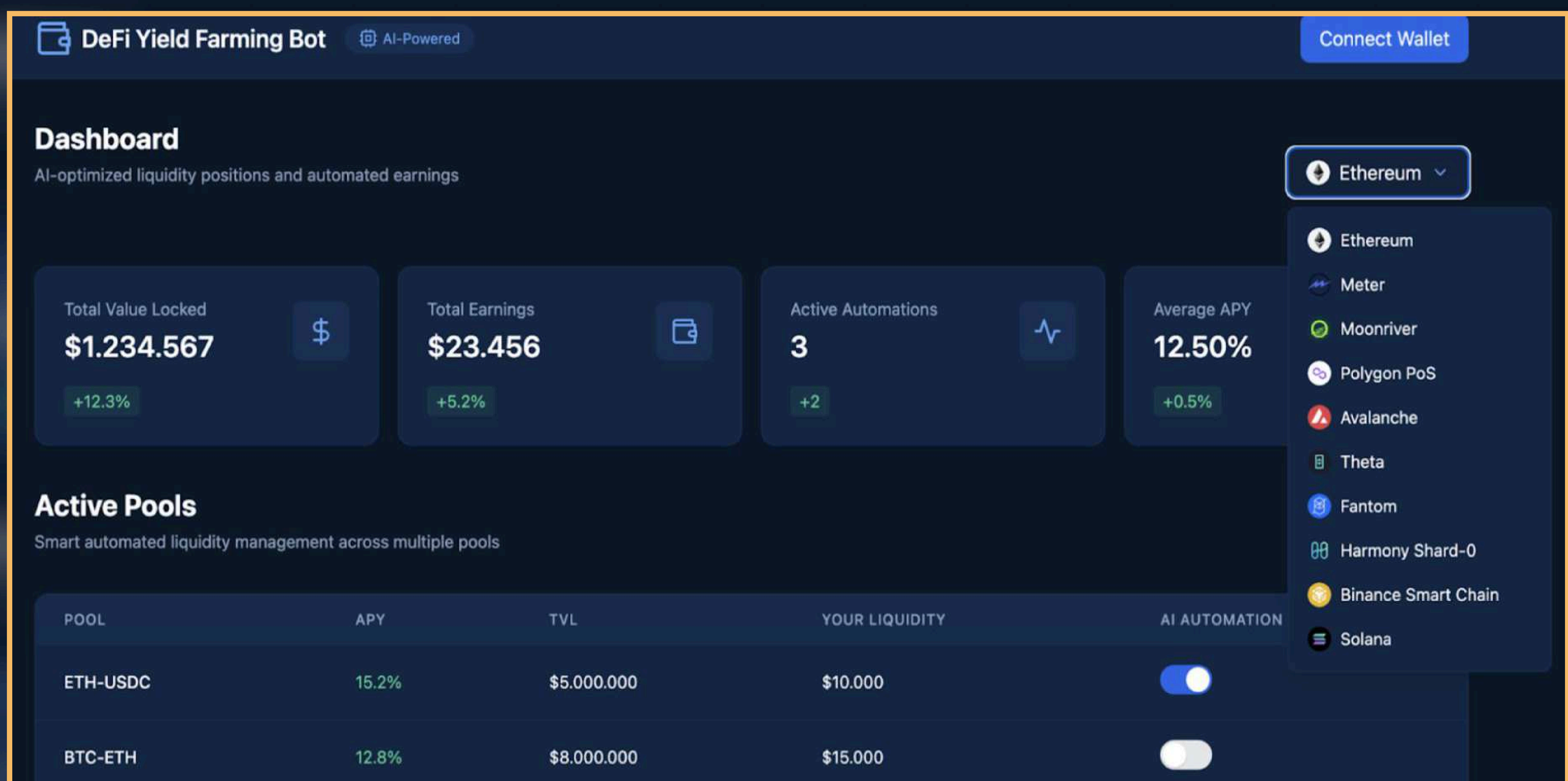
Problem	Solution with AI
Complexity and high barriers to entry (staking, farming, pool selection)	AI agent with a Natural Language Interface simplifies the interface and automatically selects the optimal pool or strategy for the user.
High risk of hacks and vulnerabilities in smart contracts	Machine learning for on-chain data analysis and anomaly detection: early warnings about suspicious transactions and real-time smart contract auditing.
Constant changes in yields and volatility	Automated trading bots and multi-tasking agents instantly reallocate assets when rates change and identify arbitrage opportunities.
Insufficient trust from institutional investors	AI-powered tools for Due Diligence (risk analytics), managing large capital volumes, and preparing reports for auditors and compliance teams.
Labor-intensive manual analysis of large data volumes	Algorithms capable of processing sessions, transactions, and news in real time, forming recommendations and forecasts for trading and liquidity management.
Lack of a unified approach to KYC/AML and legal uncertainty	Semi-automated KYC/AML modules based on AI streamline regulatory compliance and reduce manual workload for DeFi project teams.



# 2. Application of AI in DeFi: Key Scenarios and Mechanisms

## Automation of Investment Strategies

The DeFi market is dynamic: hundreds of liquidity pools, lending protocols, and tokens are available, and yields can change within a few hours. According to analytical platforms, the total TVL across all DeFi deployments exceeds \$125–130 billion. For a person, it is **difficult to simultaneously track** such a broad ecosystem. AI agents handle regular monitoring and real-time asset management, automatically reallocating funds when predefined conditions are met (e.g., APR decreases, volatility increases).



## Key Mechanism:

Yield-Farming Bots: Compare current APY rates across platforms such as [Aave](#), [Curve](#), [Uniswap](#), [SushiSwap](#).

Switch liquidity instantly, minimizing “stagnant” funds and manual delays, which is especially important during sudden market changes.



# Algorithmic Trading Management

AI agents combine on-chain data with external APIs (market quotes, social metrics), providing “hot” signals for entry and exit points. In projects like [YesNoError](#) or [Griffain](#), the analysis of volatility is complemented by instant trade execution, increasing overall profitability.



# Self-Tuning Portfolios

AI models account for counterparty risk and the liquidity of each protocol, continuously “fine-tuning” asset allocation. According to [FinSMEs](#), [DeFi Agents AI](#) raised \$1.2 million, claiming the ability to manage assets exceeding \$5 million, automatically reallocating funds when rates change.



# 2.1 Intelligent Market Analysis and Forecasting

The crypto market is characterized by **high volatility**, and traditional technical analysis approaches often fail to provide accurate predictions. Moreover, data is fragmented across blockchains, CEX/DEX, social media, and messengers. AI tools, trained on large datasets of historical data (on-chain transactions, prices, social mentions), generate more reliable signals for trading and long-term investments.

## Key Mechanisms:

### ✦ 1. Analysis of Social Metrics

AI agents monitor Twitter, Reddit, Telegram. On platforms like [Cookie.Fun](#), they track "mindshare" metrics, showing how a token gains/loses popularity. An increase in mentions by +200–300% per day can indicate an upcoming token "pump."



### ✦ 2. Assessment of Fundamental Value

Analysis of GitHub repositories (commit frequency), roadmaps, partnerships, and teams. AI can filter out projects with weak "fundamentals," regardless of temporary noise/hype.

### ✦ 3. Automatic Anomaly Detection

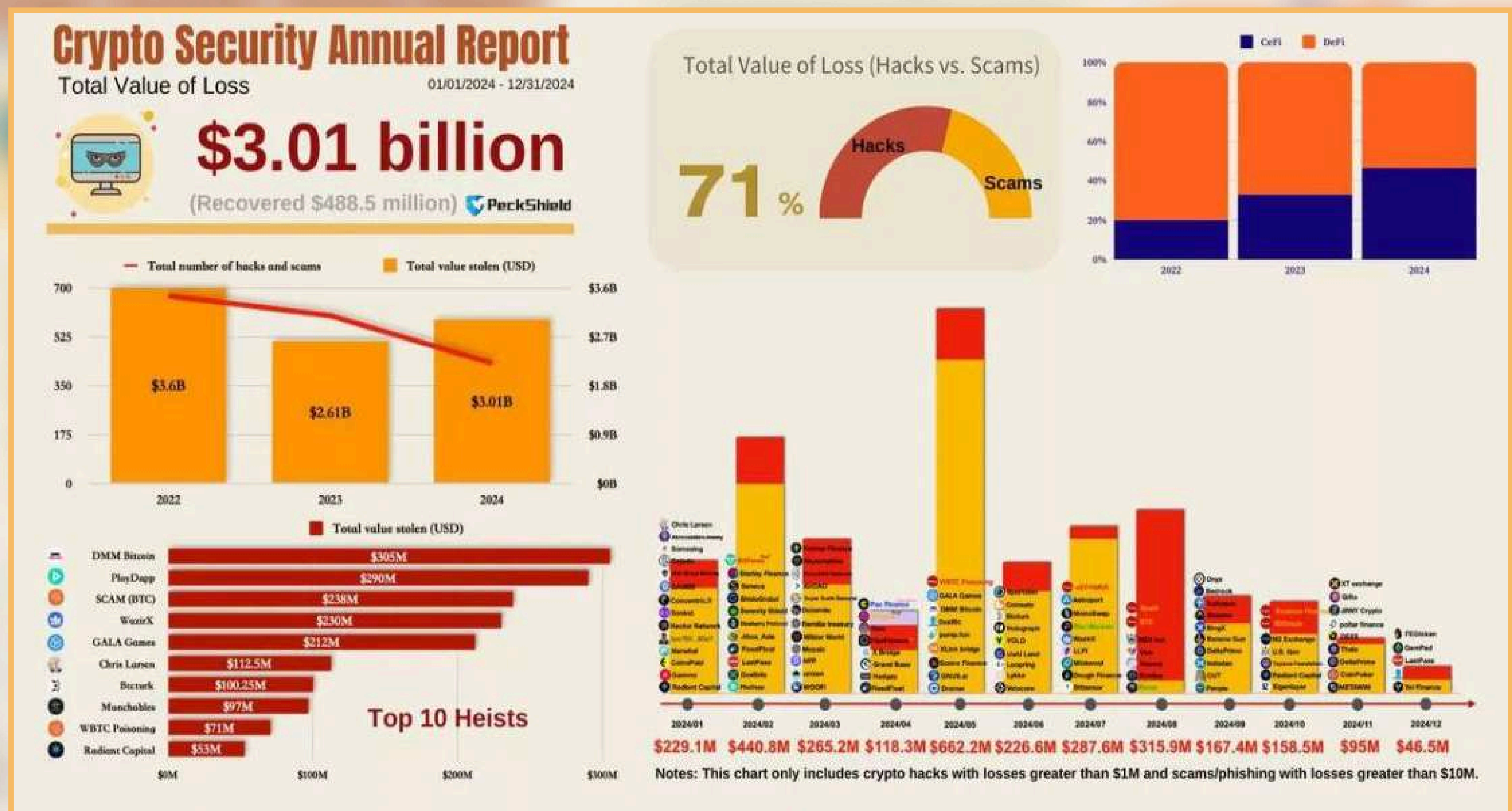
Sudden activity around a smart contract (transaction spikes) may indicate insider events (e.g., early listings).





# 2.2 Risk Management and Cybersecurity

As TVL in DeFi grows, so does the number of hacks. According to PeckShield's report for 2024, **over \$3.01 billion has been stolen** in the DeFi sector alone. AI models are actively being implemented for early detection of smart contract vulnerabilities and monitoring suspicious transactions, including mitigating damage from flash-loan attacks and reentrancy exploits.



## Key Mechanisms:

### 1. ML Solutions for Code Analysis

Platforms like De.Fi, Immunefi use AI for static/dynamic auditing, quickly identifying potential vulnerabilities. Some estimates suggest that using ML can reduce the risk of critical breaches by 30–40%.

### 2. Anti-Fraud and Monitoring

AI algorithms track transaction chains, identifying links to phishing sites or previously flagged hacker addresses. In cases of sudden fund movement to unknown wallets, automatic blocking and “smart” DAO notifications can be triggered.

### 3. “Smart Alerts” for DAOs

If an AI agent detects abnormal activity around treasuries, it can recommend participants initiate multi-signature freezes or urgent voting, speeding up decisions and reducing human error.



## 2.3 Enhancing User Experience (UX)

The complexity of DeFi (liquidity pools, gas fees, network switching) continues to deter a broader audience. New users find it difficult to navigate the variety of protocols and settings. AI tools and “natural” interfaces (similar to ChatGPT) enable users to formulate queries and entrust all **technical actions to the agent**.

### Key Mechanisms:

#### 1. Account Abstraction

The AI agent handles gas fees, networks, and commissions. The user sees a single-click option to “Provide Liquidity,” reducing the risk of common errors such as “not enough ETH for fees.”

#### 2. Voice Assistants for DeFi

A theoretical scenario where the user states: “Increased risk, I want APR above 10%.” AI bypasses DEX/lending pools, finds the best option. Similar solutions are already offered by Orbit Crypto AI and HeyAnon, simplifying entry for beginners.

#### 3. Personalized Recommendations

AI considers the user’s risk tolerance, favorite tokens, and historical portfolio, forming a “smart” deposit across multiple protocols (e.g., Aave + Curve). Integration with push notifications alerts users to sudden APR changes or heightened risks.



## 2.4 New Institutional and Corporate Logic

Major players (banks, funds) cannot ignore DeFi, but they are deterred by the lack of comprehensive risk management, KYC/AML complexity, and an unclear compliance structure.

AI acts as a layer of automation and analytics, allowing for quick adaptation to global regulatory requirements and enhancing the transparency of DeFi operations for large-scale transactions.

### Key Mechanisms:

#### 1. Institutional KYC + AI

A module that verifies the risk profile of an address by cross-referencing it with suspicious activity databases. This reduces the manual workload for compliance officers, making DeFi products more “acceptable” for the banking sector.

#### 2. Corporate “Trading DAOs”

Organizations establish DAOs for liquidity management, while the AI agent selects strategies for asset allocation (staking, farming, hedging). The board of directors only approves key decisions, with the algorithm handling the rest.

#### 3. Privacy and Scalability

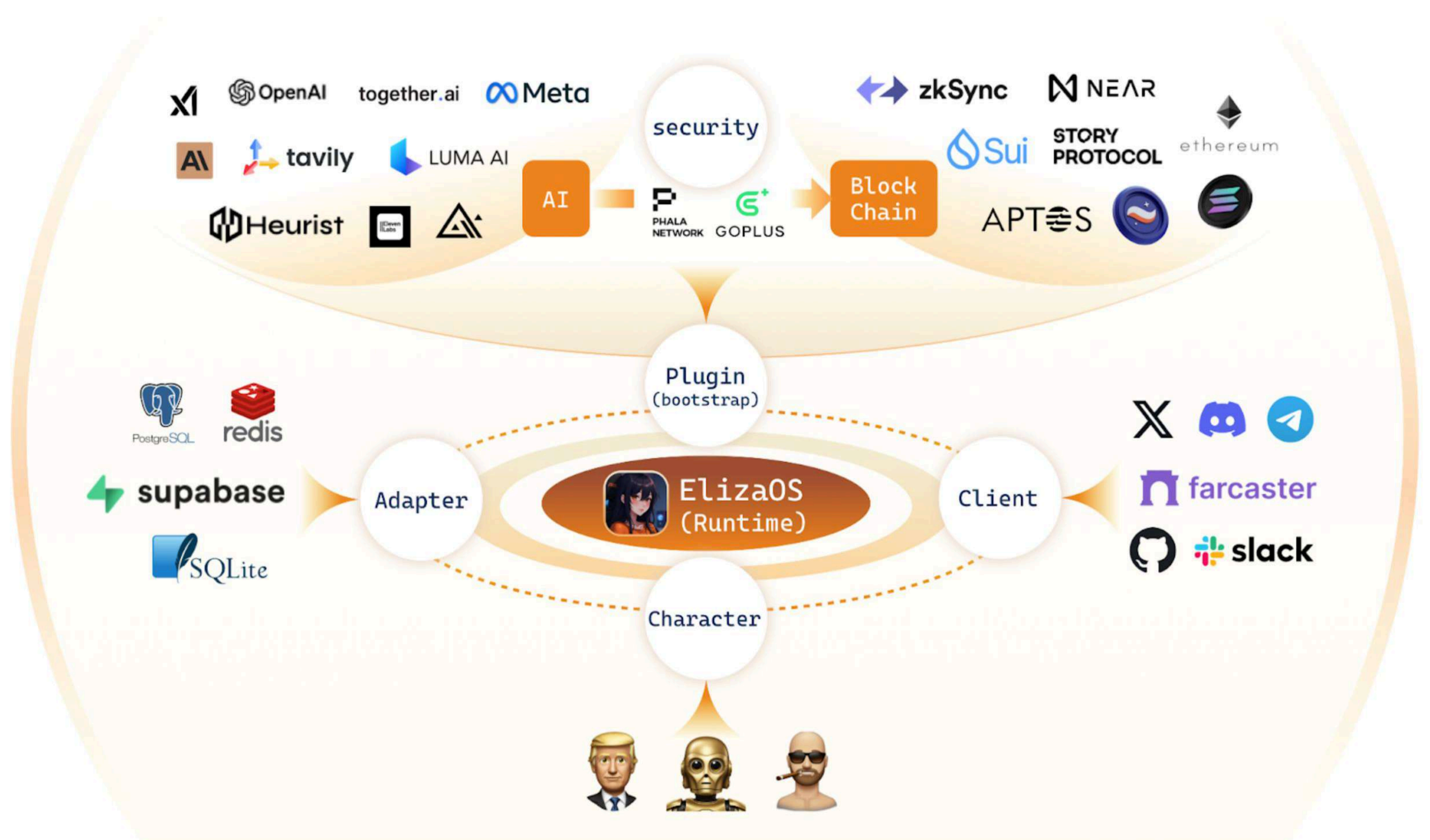
Institutions can use Layer 2 solutions ([Arbitrum](#), [Optimism](#)) and private options where AI processes confidential business information, while only results are recorded on the blockchain, maintaining compliance with confidentiality requirements.



# 3. Case Studies: How AI Agents Are Already Operating in DeFi

## Virtual's Protocol: Ecosystem of "Each Agent = Its Own Token"

Within Virtual's Protocol, each AI agent issues its **own token**, traded in pairs with the native Virtuals token. A portion of trading fees is allocated for buybacks and token burns, sustaining demand. A notable case is AI xbt, an influencer bot generating analytics on Twitter and occasionally "sensational" news while engaging a substantial audience. According to various aggregators, the capitalization of Virtual's Protocol reaches **\$2.8+ billion**, and successful agents within the ecosystem (aixbt, Vader, Convo) are valued in the hundreds of millions of dollars.



## AI16z and Eliza Framework: Social Bots with Autonomous Potential

The Eliza framework from AI16z simplifies the creation of "social" AI bots capable of managing Twitter/Discord accounts and interacting with users. The team plans to expand functionality (Eliza V2) – from advanced memory to planning trading operations in DeFi. According to several GitHub trackers, Eliza is one of the most "starred" repositories for AI agents (over 2k stars). Early projects demonstrate that social bots not only grow their audience but also require full on-chain functionality, custom plugins, and V2 architectures for scalability.

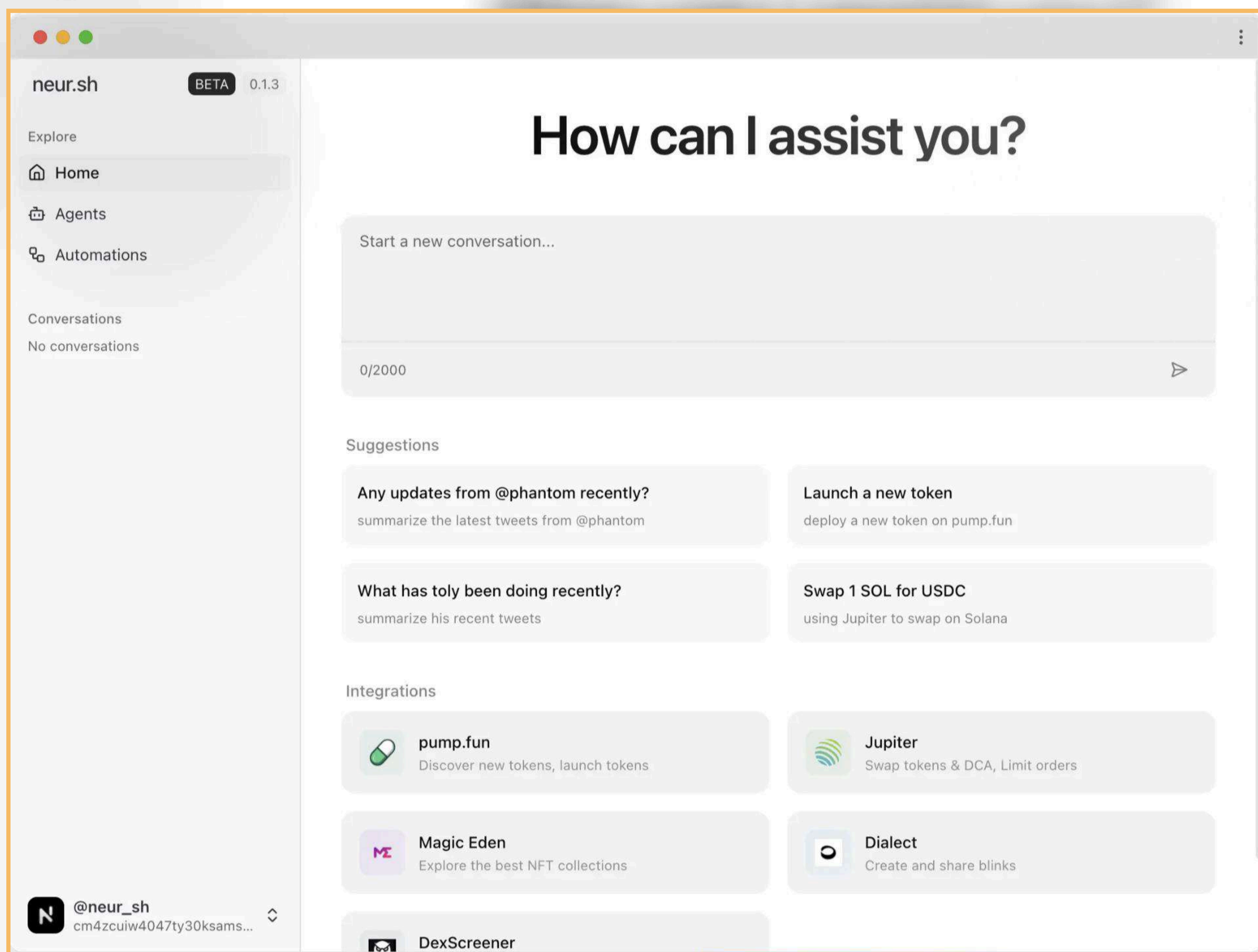


## Griffain, NEUR, AgentP (Solana-segment)

Solana stands out for its high throughput (up to several thousand TPS) and low fees, making it ideal for AI processing large volumes of transactions.

**Griffain.** Automation of staking, farming, and internal analytics. Capitalization is approximately \$500+ million (according to Cookie.Fun). Positioned as an “all-in-one” AI tool: users only need to specify their desired risk level.

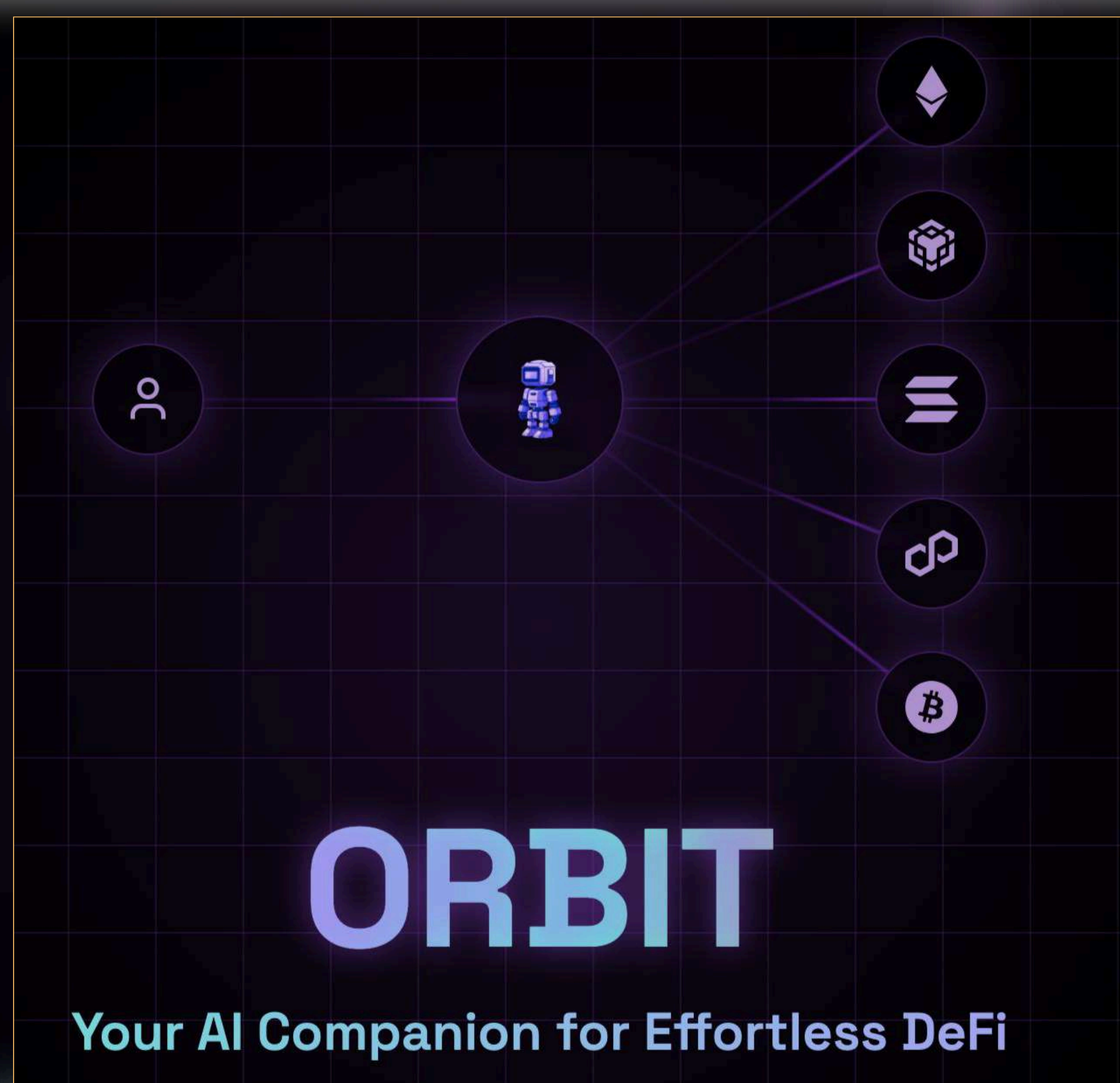
**NEUR.** A GPT-based model interacting with Solana protocols, capable of providing step-by-step recommendations (e.g., “How to best allocate assets on Serum, Orca”). It features a dialog-based interface, simplifying token and pool searches.



# HeyAnon.ai, Orbit Crypto AI, DeFi Agents AI: Solutions for a Broad Audience

1. **HeyAnon.ai.** A project with a simplified interface for staking, token swaps, and cross-chain bridges. Feature: The AI assistant asks users for basic parameters (amount, risk) and independently allocates assets. Capitalization stands at \$273 million (according to coinspot.io), with support for several launchpads.
2. **Orbit Crypto AI.** Tools for B2B integrations (wallets, DEX), as well as “smart advice” for investors. It can act as an intermediary “AI layer” – aggregating data from multiple sources and providing recommendations.
3. **DeFi Agents AI.** According to FinSMEs, the project raised \$1.2 million for developing AI trading solutions. It promises a multi-network approach: users don’t need to switch between Ethereum and BNB Chain; AI handles it automatically.

These projects prioritize user-friendly UX and a “short path” from fund input to allocation in DeFi protocols. They lower entry barriers for beginners and offer advanced AI features (Due Diligence, risk assessment) for more experienced users.



[Learn More About AI Agents](#)



# 4. Risks and Challenges in Integrating AI and DeFi

Despite its clear advantages, this direction faces several risks and obstacles that prevent DeFi AI from fully unlocking its potential.

Below are the key challenges:

## 1. Cybersecurity and Hacks

- Large capital volumes (TVL) inevitably attract hackers. AI algorithms help quickly detect anomalies but don't guarantee 100% protection. According to PeckShield, over \$3.01 billion was stolen in the DeFi sector in 2024. Machine learning reduces such losses by 30–40%, but attacks still persist.
- Exploits targeting AI agents: Hackers can “alter” the model's logic or intercept API keys. Without a reliable infrastructure or backdoor protection, an agent's vulnerability can compromise the entire protocol.

## 2. Regulatory Uncertainty

- Who is accountable if an autonomous agent violates sanctions or conducts suspicious transactions? There is no clear definition of whether an AI agent is a “subject” or merely a tool.
- Variations across jurisdictions: Some countries (e.g., Singapore, Switzerland) are more open to innovation, while others impose strict KYC/AML requirements on any financial applications.

## 3. Human Factor and Hype

- Speculative tokens: Many “meme agents” or tokens offer no real utility, with overly ambitious AI promises. Volatility can reach +20–50% per week, creating unrealistic expectations and provoking pump-and-dump schemes.
- Lack of user expertise: People overestimate the “magical power” of AI, assuming bots guarantee profits. A single failure or system malfunction can lead to disappointment and financial losses due to a lack of risk understanding.



# 5. The Future of AI in DeFi



Stepan Gershuni  
VC Director at [cyber.fund](https://cyber.fund)  
Author of Telegram channel [e/acc](https://t.me/e/acc)

“In just a few months, the industry has gone from asking ‘Why is this needed?’ to reaching a capitalization of \$14 billion+. But if you look closely, 99% of projects are stuck at the level of a ‘chatbot with a meme token shitposting on Twitter.’ This clearly does not align with the capabilities of modern models like DeepSeek R1 or what awaits us with OpenAI Operator and their Stargate project worth \$500 billion. Now imagine what will happen to the market when hundreds and thousands of genuinely useful agents appear. This is not an ‘if’ question, but a matter of time. Chatbots with tokens and AI memes will almost entirely disappear within 2–3 years, and 90% of existing tokens will lose value.

Instead, we’ll see a completely different landscape: most transactions in DeFi will be initiated by AI agents.

Agents will become the primary clients of DeFi protocols, many of which will abandon human-facing interfaces altogether. Successful Layer 2 networks will be designed exclusively for agents. Most interactions will occur between agents. These could be financial managers building multi-agent chains or agents working in B2B, earning, for instance, on web2-businesses. The scale of AI financing is simply staggering. In 2025 alone, three companies – Stargate, Meta, and Microsoft – will spend \$245 billion on artificial intelligence. This shows where the global economy is heading.”





# MetaLamp

## Sources

[MetaLamp Telegram channel](#)

[AI Revolution: Decentralised Finance](#)

[The Rise of AI in DeFi: A New Era of Automation](#)

[AI Agents Transforming DeFi: Discover DeFAi](#)

[AI Meets DeFi for New Financial Intelligence: From the US to Dubai](#)

[AI Agents: CoinGecko Categories Overview](#)

[Understanding DeFi vs Artificial Intelligence \(AI\)](#)

[DeFi Agents AI Secures \\$1.2M to Drive Innovation in AI-Powered  
Decentralized Finance](#)

[AI to Help DeFi Platforms Fight Cybercrime by 2025](#)

