AI and Crypto:
A Powerful Convergence
Shaping the Future
of Internet

Key Takeaways

- AI and blockchain solutions could complement one another, thus making for a more efficient and fair internet.
- The "AI tokens" narrative has garnered significant attention among investors and traders alike, subsequent to the rise of AI-related equities.
- There are various areas in which AI and blockchain technology could intersect, that this report will differentiate as follows:-
    1. Blockchain Solutions for AI
    2. Solutions for Blockchains
- The "AI x Crypto" vertical has high potential for the upcoming crypto bullrun, as seen by the surge of VC interest in AI-related tokens.

I. Vertical Overview

The blockchain and artificial intelligence (AI) landscapes are witnessing a convergence, giving rise to the "AI x crypto" narrative. Both technologies are at the forefront of creating a powerful and freely accessible internet. AI could be utilized to improve data search efficiency, while blockchain gives users more control over their data. Combined, AI and blockchain has the potential to enhance the use of the internet to the next level, leveraging AI for complex problem solving and blockchain for secure, transparent solutions.

The method in which the two technologies could complement one another varies, which in this report we will group into two -

A. Blockchain Solutions for AI

Artificial intelligence (AI), albeit being a powerful invention, is not immune to weaknesses. One critical issue is the current centralization of data storage, programming, and development within a limited number of large corporations. Up until most recently, most of the data storage, programming and development of AI tools are single-handedly controlled by mega corporations. If the production of an AI model is conducted by a single entity, that entity has full authority over the data it feeds the model, furthermore, existing data could be altered according to the entity's likings without the end-user's knowledge. This raises the question about the alignment of the companies with the users - if the entity does not have a strong moral obligation towards its clients, it could potentially lead to the distribution of inaccurate or biased information.

Blockchain technology presents a potential solution to this challenge. By leveraging a distributed network instead of relying on centralized computing power from a single company, blockchain could incentivize users to contribute their own computational resources for AI model training and data storage. This decentralization of AI operations has the potential to mitigate risks associated with third-party control, while fostering competition among users to provide these services at more efficient pricing. Through this mechanism, a natural process of price discovery could emerge, leading to a more cost-effective allocation of computing resources.

By bringing AI storage, computations, and resources on-chain, it could pave the way for a trustless, fair, and potentially cheaper AI network.

B. AI Solutions for Blockchain Networks

In turn, AI technologies could also enhance blockchain networks through various ways.

For example, as on-chain data is relatively disorganized, AI models could run complex analyses on on-chain data that allow blockchain developers to identify issues or flaws within the decentralized application (dApp).

A further application of AI technology in blockchain is security enhancement. While current smart contracts primarily rely on cryptographic mechanisms to ensure secure blockchain transactions, the integration of AI could introduce an additional layer of security for blockchain applications through conducting audits.

Furthermore, AI could assist Decentralized Autonomous Organizations (DAOs) when making decisions, allowing web3 communities to make a more informed decision.

Aside from being beneficial to blockchain, AI could also serve as a tool to enhance the crypto market in general. AI tools could be used to automate trading and yield farming strategies, or may make it more convenient for the general public to use other complex web3 dApps.

The use cases of blockchain and AI can be summarized as follows:

Blockchain Solutions for AI	AI Solutions for Blockchain
Decentralized Storage	On-chain Data Analysis
Decentralized GPU Network	Smart Contract Writing
Decentralized Computing	Security Enhancement
Zero Knowledge Machine Learning	DAO Decision Assistance
	Trading Bots
	DeFi/Yield Farming Bots

II. Market Landscape

Prior to the emergence of the "AI x Crypto" narrative, AI has made a huge debut in the equities sector, with investors piling into AI infrastructure producers such as GPU provider Nvidia ($NVDA), computing giants like Amazon ($AMZN), or AI developers such as Microsoft ($MSFT) and Google ($GOOG). AI stocks generally saw positive price action over the past year, as shown in the table below.

	MSFT	NVDA	GOOG	META	IBM	PLTR
May 2023	6.88%	36.34%	14.00%	10.15%	1.72%	89.81%
June 2023	3.70%	11.81%	-1.95%	8.41%	4.06%	4.21%
July 2023	-1.36%	10.47%	10.04%	11.02%	7.75%	29.42%
August 2023	-2.12%	5.62%	3.19%	-7.13%	1.84%	-24.50%
September 2023	-3.97%	-11.87%	-4.00%	1.46%	-4.45%	6.81%
October 2023	7.08%	-6.25%	-4.63%	0.35%	3.09%	-7.50%
November 2023	12.07%	14.69%	6.50%	8.59%	9.62%	35.47%
December 2023	-0.76%	5.88%	5.23%	8.20%	3.15%	-14.36%
January 2024	8.66%	24.24%	0.62%	10.22%	12.30%	-6.29%
February 2024	1.24%	28.58%	-1.42%	25.63%	0.75%	55.87%
March 2024	1.71%	14.21%	8.93%	-0.93%	3.20%	-8.25%
April 2024	-7.46%	-4.38%	8.13%	-11.41%	-12.97%	-4.52%

Figure 1. AI Stocks % Change in Price

Data as of May 1, 2024

Data source: Yahoo Finance

As AI was trending in the equities market, the crypto market was quick to catch up with the AI crypto narrative trending in late 2023, and again in February - April of 2024.

With AI being the hottest keyword for the past year, many speculate that AI will be the perma-narrative of this bull run, as following a pattern from the past bull runs, there was always one dominating vertical each time, such as the DeFi summer in 2020, and NFTs in 2021.

	NEAR	RNDR	TAO	GRT	INJ	THETA	FET	AGIX	AKT	AIOZ
May 2023	-14.39%	7.83%	-	-7.08%	-11.97%	-14.04%	-22.03%	-11.58%	105.12%	-17.62%
June 2023	-14.93%	-24.19%	-	-19.03%	-0.23%	-19.48%	-18.10%	-26.48%	-14.75%	-11.35%
July 2023	4.87%	-5.62%	-	10.63%	13.22%	16.74%	0.22%	1.87%	30.66%	-12.59%
August 2023	-13.00%	-17.64%	-	-16.33%	-9.65%	-20.27%	0.07%	-15.81%	80.44%	-10.36%
September 2023	-9.47%	2.87%	-	-6.30%	0.52%	-0.36%	1.27%	-3.94%	-23.06%	0.03%
October 2023	20.28%	67.52%	-	22.29%	90.37%	5.66%	64.33%	32.41%	25.89%	6.48%
November 2023	45.05%	30.26%	-	39.70%	20.30%	40.13%	50.02%	29.89%	62.22%	618.95%
December 2023	101.22%	39.37%	15.25%	23.74%	115.26%	32.84%	27.63%	5.95%	35.56%	51.39%
January 2024	-15.27%	-6.33%	48.69%	-10.05%	10.74%	-18.55%	-8.14%	-14.07%	25.27%	2.47%
February 2024	32.66%	68.69%	57.94%	72.46%	6.66%	78.71%	70.11%	140.23%	57.65%	124.93%
March 2024	76.12%	53.72%	-11.12%	41.31%	-4.34%	58.30%	190.60%	101.20%	17.73%	175.59%

Figure 2. AI Token % Change in Market Capitalization

Data as of May 1, 2024

Data source: Coingecko

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Market capitalization of the top 10 AI tokens surged significantly since the third quarter of last year, simultaneously the crypto market in general also saw an increase in market capitalization and trading volume within this period. Smaller cap tokens, such as $AIOZ and $AKT, saw the most increase in market capitalization over the past few months, signifying that investors are shifting their focus from the top altcoins to looking for undervalued potential tokens.

Top 10 AI Crypto YoY Price Performance
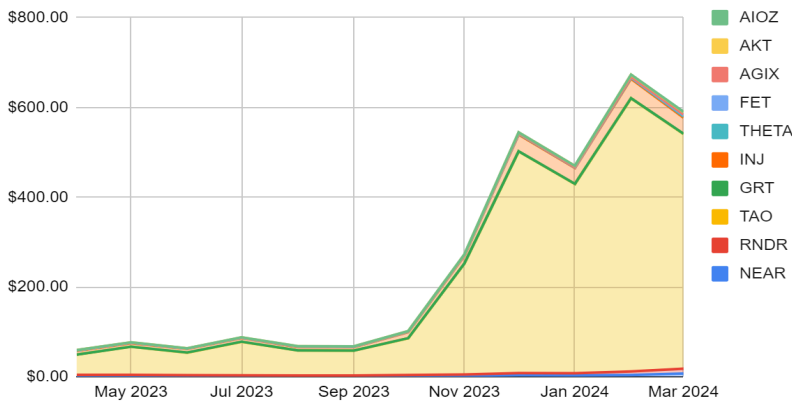
Figure 3. Top 10 AI Crypto Token % Price Change YoY

Data as of May 1, 2024

Data source: Coingecko

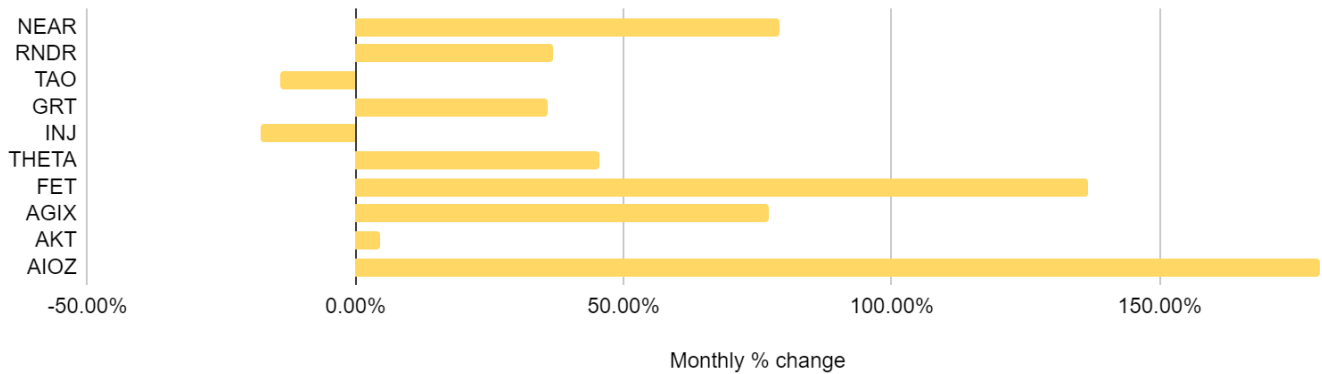Top 10 AI Crypto Price % Change (Feb-Mar 2024)

Figure 4. Top 10 AI Crypto Token % Price Change (Feb-Mar 2024)

Data as of May 1, 2024
Data source: Coingecko

In terms of price action, the top 10 AI altcoins also saw an overall increase in price, as shown on the above table and chart, with once again, the smaller cap tokens such as $AIOZ and $AKT leading the pack with the largest price increases.

As we can see in the above charts, AI tokens had an overall positive year, with the peak of the trend being March of 2024. AI tokens generally follow the rise and fall of the broader crypto market.

I.   Project Highlights

Below are several examples of "AI x crypto" projects from each category.

A. Blockchain Implementation in AI

1. Decentralized GPU Networks

Decentralized GPU networks pool computing power from user computers while incentivizing these users with monetary rewards.

A. **Render Network $RNDR**
- The Render Network, launched in 2017, is the first decentralized GPU rendering platform, originally built with artists and game developers in mind.
- Render's founder Jules Urbach had more than 25 years of experience in computer graphics, streaming and 3D rendering.
- $RNDR, along with $TAO became one of the tokens that led the AI pump earlier this year, and is currently the second largest AI cryptocurrency by market capitalization, after $NEAR, an AI focused blockchain network.
- $RNDR saw an increase of more than 200% YoY.

B. **Aethir Cloud $ATH**
- Aethir Cloud is a decentralized GPU network focused on supporting compute-intensive domains and applications like Artificial Intelligence (AI), Machine Learning (ML), and Cloud Gaming.
- The project is backed by Arthur Hayes, CIO at Maelstorm, and a prominent figure in the cryptocurrency industry.
- Its token $ATH is yet to be launched.

C. **Io.net $IO**
- Io.net aggregates GPUs from underutilized sources such as independent data centers, crypto miners, and crypto projects.
- Unlike GPU providers like Render and Aethir, the Io.net manages the network directly through its IO Cloud.
- Io.net's $IO token is yet to be launched.

● Io.net is partnering with Aethir Cloud to deploy 640,000 GPUs into Io.net's GPU network.

II.   Decentralized Computing (On-chain Inferences)

Projects listed below provide a platform for AI models to verify their inferences on-chain

D. Giza
● Giza is designed for building, managing and hosting verifiable machine learning models.
● Giza verifies AI inferences on-chain using zero-knowledge proof cryptography. This is done to validate the correctness of computational processes.
● Founder & CEO Francisco Algaba de la Vieja previously worked at Polygon in Business Development and created a web3 community in Madrid.
● Giza has no token yet.

E. Modulus
● Modulus uses cryptography to make sure AI results are not doctored.
● Like Giza, Modulus verifies AI inferences on-chain using zero-knowledge proof cryptography.
● Modulus has no token yet.

F. Inference Labs
● Inference Labs specializes in developing an on-chain verification infrastructure for off-chain AI, using zero-knowledge machine learning.
● Founder Ron Chan has over 27 years of experience in technology, change management, and development.
● Founder Colin Gagich co-founded CENG technologies, an Engineering as a Service platform.

II. **Multiple Product Suite**

A. **Aioz Network $AIOZ**

- Aioz Network is a multi-product project focused on building a decentralized infrastructure for Web3 applications, specifically targeting AI, storage, and streaming.
- Aioz has a wide range of product suite encompassing web3 storage, decentralized AI computation, live streaming and video on demand tools.
- $AIOZ quickly shot up to number 10 in market capitalization for the AI tokens category, witnessing more than 150% price increase within February and March alone.
- The project has been in development for over 11 years.

B. **Bittensor $TAO**

- Bittensor is one of the most sought after projects early this year.
- Bittensor is a decentralized machine learning protocol that enables the exchange of machine learning capabilities and predictions among participants in a network. It facilitates the sharing and collaboration of machine learning models and services in a peer-to-peer manner.
- Bittensor's founders, Ala Shaabana and Jacob Steeves are experienced software engineers, Shaabana was a postdoctoral research fellow at the University of Waterloo, while Steeves was an ex-Google software engineer.
- Bittensor became one of the most hyped up projects, with its token $TAO up 796.89% YoY (as of Apr 29, 2024).
- A possible reason for Bittensor's surge to popularity is an endorsement by Ethereum's founder Vitalik Buterin, one of the most influential figures in the industry.

C. **SingularityNET $AGIX**

- SingularityNET is a decentralized AI marketplace, running on blockchain. Aside from that, SingularityNET also boasts its Artificial General Intelligence (AGI) model that is a decentralized AI model built by a decentralized network of developers.
- SingularityNET's token AGIX has increased 151.54% in price over the past year.
- SingularityNET's founder Ben Goertzel is a mathematician, AI theorist, and philosopher.
- SingularityNET boasts a team of 130 people according to LinkedIn.

D. Fetch AI $FET

● Fetch AI is an open platform for developers to build, deploy, and monetize on AI models.

● Fetch AI has a full suite of products ranging from an AI engine, a search-based AI chat interface (DeltaV), AI creation & customization (Agentverse), and an open network for AI intersection via the Almanac Contract.

● Humayun Sheikh, Fetch AI's founder, previously founded DeepMind, a commercialisation platform for early-stage AI & deep neural network technology.

● Token $FET is currently up over 500% in the past year.

E. Altered State Machine $ASTO

● ASM is an AI training platform where users can store their AI model in the form of non-fungible tokens (NFTs) dubbed "ASM Brains".

● ASM Brains could be used for many different purposes such as game players / characters, metaverse assistants, DeFi trading bots, chatbots, digital twins (e.g. "Super Siri"), and advertising.

● Unlike other tokens, $ASTO did not perform well in the past year.

B. AI Implementation in Blockchain

A. Botto $BOTTO

● Botto is a decentralized autonomous AI artist controlled by a DAO.

● Botto is a combination of AI algorithms including Stable Diffusion, VQGAN + CLIP, GPT-3, and a number of custom augmentations. It uses the community's votes to decide what to make each week, and mints the most popular weekly image as an NFT for auction on SuperRare.

● Botto has sold over $3.5m worth of art, having been featured in over 20 exhibitions and museums across the globe.

● The project was first created by artists Eleven Yellow, Carbono, and Quasimodo.

● $BOTTO saw over 300% increase in price over the past year.

B. Paal AI $PAAL

● Paal AI is an AI customization platform, where users are free to create AI bots according to their needs and without any coding knowledge.

● Bots could range from community chatbots, trading assistant bots, sports betting bots and more.

- $PAAL saw a spectacular gain of more than 3000% YoY.

IV. Upcoming Events in the Space

The list below includes important events and conferences from both the blockchain and AI industries.

Event	Date	Venue
Wiki Finance Expo	May 24, 2024	Hong Kong, China
Blockchain Economy Istanbul Summit	May 29-30, 2024	Pullman Istanbul Hotel & Convention Center (Istanbul, Türkiye)
Consensus 2024 by CoinDesk	May 29-31, 2024	Austin, Texas
ETH Belgrade	June 3-5, 2024	Serbia
Blockchain Expo 2024 North America	June 5-6, 2024	Santa Clara Convention Center (Santa Clara, California)
Blockchain Expo World 2024	July 4-7, 2024	Istanbul Expo Center (Istanbul, Türkiye)
Bitcoin 2024	July 25-27, 2024	Music City Center (South Nashville, Tennessee)
Blockchain Futurist Conference	August 13 -14, 2024	Toronto, Canada
ETHToronto	August 13 -14, 2024	Toronto, Canada
ETHWomen	August 13 -14, 2024	Toronto, Canada
Coinfest Asia 2024	August 22-23, 2024	Bali, Indonesia
WebX 2024	August 28-29, 2024	Tokyo International Forum (Tokyo, Japan)
Permissionless II	September 11-13, 2024	Austin Convention Center (Austin, Texas)
TOKEN2049 in Singapore	September 18-19, 2024	Marina Bay Sands, Singapore
Zebu Live 2024	October 10-11, 2024	London, UK
Blockchance 24	October 16-18, 2024	Hamburg, Germany
Blockchain Life Forum	October 22-23, 2024	Dubai, UAE
Blockchain Africa Conference	October 31 – November 1, 2024	The Galleria, Sandton (Johannesburg, South Africa)
NexTech Week Tokyo	November 20-22, 2024 (Autumn Show)	Makuhari Messe (Chiba, Japan)

V. Conclusion

The "AI x Crypto" narrative has the potential to become one of the strongest trends in the next bull run, as shown by a staggering increase in market capitalization and price of cryptocurrencies associated with the trend. The rise of the narrative could be attributed to the boom in AI related equities back in 2023. The boom in AI crypto tokens was led by Render Network's $RNDR, followed by smaller market capitalization tokens in the following months. This narrative comprises projects that implement both AI and blockchain technology. There are many ways in which the two technologies can complement one another, including decentralized computations, AI trading assistants and so on. Despite the downturn in the broader financial markets, both the crypto and AI spaces remain robust this year with various events and seminars in anticipation of the next bull run.

This report was produced by Bitrue Ventures

Launched in Q2 2024, Bitrue Ventures is the investment and research division of the Bitrue exchange with a mission of identifying and bringing to fruition cutting edge technology in the cryptocurrency space. It is staffed by industry experts with an average of 12 years experience in the technology sector and 4 years working in blockchain technology. By collaborating with leading blockchain ecosystems and seasoned investors, we strive to create a thriving environment for projects that can transform the digital landscape. Bitrue Ventures is committed to driving long-term value and fostering a vibrant blockchain community.