

WHITEPAPER





Introduction to X AI (\$XAI)

X AI (\$XAI) is an application that uses artificial intelligence and machine learning algorithms to create unique digital assets that can be sold as NFTs. NFTs are blockchain-based tokens that represent ownership of digital assets, such as artwork, music, videos, or any other type of creative content. AI can have a significant impact on the crypto industry in several ways, including trading, fraud detection, security, portfolio management, and DApps.

Firstly, X Al has the potential to transform the way NFTs are produced by feeding data such as images or videos into an Al model that generates new artworks based on that data. One of the key advantages of using Al to generate NFTs is the ability to create extremely intricate and unique digital assets that are highly attractive to collectors.

X Al intends to establish a robust presence in the DeFi market by offering exceptional use cases. The company offers diverse DeFi offerings that distinguish it from other DeFi cryptocurrency projects. In addition, by utilizing blockchain technology, the Al-generated NFTs are distinct and impossible to duplicate, enhancing their worth and making them desirable items for collectors and investors.

The XAI utility token allows users to access a variety of AI tools and products, including the XAI AI marketplace, a platform that enables

developers to build, share, and sell Al models, as well as XAI Data Lab, a platform for data collection, analysis, and annotation. The XAI token is also used for decentralized payments for Al services, data access, computing power and other services. Overall, XAI is intended to become the primary currency for the AI economy and foster innovation in the AI and blockchain space.

Furthermore, Elon Musk is setting up a new Al company in Nevada called X.Al Corp according to sources from Wall Street Journal. His right hand man Jared Birchall is being listed as the company's secretary and will provide a major tailwind to X Al in our future Al roadmap.

Forbes



Tesla CEO Elon Musk speaks with presenter Xenia Wicket at the Offshore Northern Sea 2022 (ONS) ... [+] NTB/AFP VIA GETTY IMAGES

Elon Musk has formed a new AI company in Nevada called X.AI Corp., according to a new report from the Wall Street Journal.

Musk is listed as the director of the company and Jared Birchall,
widely considered to be Musk's right-hand man behind the scenes,
is listed as the company's secretary.



This is a brief summary of the features that X AI has to offer



X GPT:

X GPT is an Al-powered chatbot designed specifically to help with Blockchain technology and Crypto. This chatbot can assist individuals, developers, and businesses with a wide range of tasks, including no-code smart-contract programming, debugging, market analysis, guidance, and trading. X GPT provides comprehensive aid so that anyone can easily access the blockchain and cryptocurrency markets. Right now, the beta version is up and running and it won't cost you a thing: https://xai.codes/gpt



X Al Draw:

The ability to revolutionize the process of creating NFTs. Rather than relying on artists to produce unique digital art, generative art uses algorithms and code to create one-of-a-kind pieces. X Al applies this technique to the production of NFTs by feeding data, like images or videos, into an Al model. Right now, the beta version is up and running and it won't cost you a thing: https://xai.codes/draw



X Marketing:

Al can be used in marketing to personalize customer experiences, automate marketing processes, and optimize campaigns. Al algorithms can analyze customer data and behavior to provide insights into customer preferences and trends, allowing businesses to tailor their marketing efforts accordingly



X Transportation:

Al and machine learning techniques and models enable X Riding to make headway in various areas, such as transportation, mobility, customer service and driver-partner guidance. X Al research will enable vital advances in demand predictions and smoother pickup services. We are creating our own transport app, taking X Al & Crypto as forms of payment, for launch. This app has the potential to be easily scaled geographically, as well as lower operating costs, enabling us to compete with larger companies in the industry.

Fifty percent of the charges and incomes acquired by the X AI applications and features within the system are eliminated, reducing the availability of \$XAI. The remaining fifty percent is employed for the expansion and viability of the X AI ecosystem.

X AI is pioneering a blockchain-based AI revolution by actively developing incredible tools and utilities that will allow users to harness the full potential of AI. From onchain AI inference and AI-generated NFTs to AI trading bots and decentralized AI application development, X AI is leading the charge in the industry.



The Concept

X AI GPT is an advanced Artificial Intelligence (AI) model created to help with anything related to cryptocurrency and blockchain. Its functionality is based on the fundamental ideas of GPT, which must be understood in order to grasp how it works and what it can do.

This guide will help to educate the reader on the ideas behind X AI GPT, providing a comprehensive look at how this powerful technology can be utilized. Those with an interest in AI, developers, and researchers will benefit from an in-depth understanding of X AI GPT and its potential.

X GPT Model

1. Machine Learning

X GPT is a highly advanced AI model that has been improved upon through significant machine-learning open-source model training. It has evolved into the powerful AI model that it is today.

2. Language Modeling

Our Machine Learning Engineers trained GPT on a dataset of comprehensive details related to Blockchain Technologies, Crypto, Technical Analysis, Security Audits, and many more categories from this domain. This comprehensive dataset enabled us to generate a high number of features in our offerings.

3. Transformer - Self Attention & Acyclic Directed Graphs

It works by utilizing self-attention to encode the contextual relationships between words, which allow it to produce text that captures both the context of the current sentence and the meaning of the original text. X GPT is a powerful text generation tool that can quickly generate coherent, realistic text based on the input provided.

4. Generative Al

X GPT is a generative Al model that is capable of producing information in response to an input known as a "prompt" that is related or related to Crypto. This allows it to answer any user questions on these topics.

5. Context Awareness

Contextual awareness is the embodiment of all the nuances of human learning, encompassing the questions of "who", "where", "when" and "why" that influence human decisions and behaviour.







X AI Utility

By providing diverse DeFi offerings, X AI intends to promptly establish a robust presence in the DeFi market by offering exceptional use cases.

This approach distinguishes it from other DeFi cryptocurrency projects and enables it to set itself apart.







X Draw inherits the best practices from Dall-E 2 and Latent Diffusion while introducing some new ideas. It uses the CLIP model as the text and image encoder and employs a diffusion image prior (mapping) between the CLIP modalities' latent spaces.

This approach enhances the visual performance of the model and opens up new possibilities for blending images and manipulating images through text. To diffuse the latent spaces, we use a transformer with 20 layers, 32 heads, and a hidden size of 2048.

X Al is an innovative text-to-image diffusion model that allows users to create photorealistic images quickly and easily using only a text input. This empowering technology gives billions of people the potential to quickly create beautiful works of art without limits, offering endless creative freedom.





Architecture Structures:

Text Encoder : ViT-L/14 - 480M Image Prior : 1B Latent

Image Encoder : CLIP (ViT-L/14) - 480M Diffusion

Diffusion U-Net : 1.22B MoVQ

Encoder/Decoder: 48M

This model was designed to create portraits that look like actual paintings, not CG or heavily filtered photos. It can also produce stunning backgrounds and anime-style characters. Here are some tips: use LoRA networks to make anime-style images.

Proposed Settings:

Set CLIP to skip 2 on all the images for version 4, and have used the ENSD setting of 31337 for the images. Additionally, all images have had the highres.fix or img2img settings set to a higher resolution.

Right now, the beta version is up and running and it won't cost you a thing: https://xai.codes/draw





The X AI is powered by GPT-4 language models that can be triggered to execute natural language processes with the assistance of accurately constructed text prompts.

The X AI is powered by GPT-4 language models that can be triggered to execute natural language processes with the assistance of accurately constructed text prompts. However, these models can create outcomes that are false, toxic, or reflect bad sentiments. This is due to the fact that GPT-4 is trained to guess the subsequent word in a vast collection of online text rather than to secure the language task that the user wishes. In other words, these models have not been designed to meet the needs of their users.

Reinforcement Learning from Human Feedback (RLHF)

We fine-tuned the model using Reinforcement Learning from Human Feedback (RLHF). We trained a reward model to evaluate utterances generated by the model on conversations with human partners. We used the reward model to correct model mistakes and shape the model to produce better conversations. Finally, we used the same RLHF algorithm to fine-tune the model's parameters to optimize the reward model's predictions.

We applied a supervised fine-tuning process to train an initial model using conversations composed by human-Al trainers, who were provided model-written suggestions to aid in the composition of their responses.

Additionally, we transformed the InstructGPT dataset into a dialogue format and use it to further extend the training dataset, giving the model a larger range of inputs to learn from. We then utilized the Reinforcement Learning from Human Feedback (RLHF) algorithm to fine-tune the model's parameter to optimize the reward model's predictions. To achieve this, a reward model was developed to evaluate utterances that the model generated while interacting with human partners and was used to correct mistakes and shape the model to produce better conversations.

Natural Language Processing

X Al uses Natural Language Processing (NLP) algorithms to analyze and understand human language, allowing it to generate relevant and intelligently structured responses to user questions. NLP is a area of computer science and artificial intelligence focusing on the interpretation and manipulation of natural language for communication between machines and humans. It involves the comprehensive and practical analysis, generation, and comprehension of human language by computers. NLP allows X AI to successfully comprehend both spoken and written dialogue to accurately and quickly respond to queries.

With the help of NLP, Al is able to understand both spoken and text-based dialogue in order to respond to queries accurately and timely.

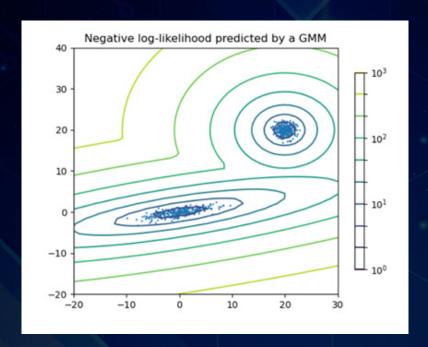
Hello there, how can I help you?

what is cryptocurrency?

Cryptocurrency is a type of digital asset used as a medium exchange between a buyer and a seller. Unlike traditional currencies, cryptocurrency is not managed or regulated by any central authority. The distributed and decentralized nature of cryptocurrency makes it secure and difficult to counterfeit. Cryptocurrencies are transferred directly between peers, and transactions are recorded on a public ledger called a blockchain. Cryptocurrencies like Bitcoin also use encryption technology to secure transactions.



Gaussian Mixture Model



A Gaussian mixture model is a probabilistic model that assumes data points come from a mixture of a finite number of Gaussian distributions with unknown parameters. This model can be seen as an extension of k-means clustering, taking into account the covariance structure of the data as well as the distributions' centers.

The GaussianMixture object implements the Expectation-Maximization (EM) algorithm to fit mixture-of-Gaussian models. By using this object, it is possible to draw confidence ellipsoids for multivariate models, compute the Bayesian Information Criterion to assess the number of clusters in the data, and assign each sample of test data to the Gaussian it most likely belongs to using the GaussianMixture.predict method. The object also provides four options to constrain the covariance of the differences classes estimated: spherical, diagonal, tied and full covariance.

Supervised learning uses labeled data, meaning that the dataset contains a set of inputs and corresponding desired outputs. This type of learning involves the use of algorithms that can learn from data and use it to make predictions. Examples of supervised learning algorithms include Linear Regression, Logistic Regression, Support Vector Machines and Neural Networks.

On the other hand, unsupervised learning uses unlabeled data and focuses on finding patterns and using them to classify items or detect outliers. This type of learning usually relies on algorithms such as clustering, dimensionality reduction and generative models. Examples of unsupervised learning algorithms include K-Means, Hierarchical Clustering, Principal Component Analysis and Autoencoders.

A Gaussian Mixture is a function composed of multiple Gaussians, which are identified by $k \in \{1, ..., K\}$, where K is the number of clusters in the dataset.

Right now, the beta version is up and running and it won't cost you a thing: https:xai.codes/gpt









X Trading

Al is becoming increasingly present in stock trading, providing a convenient, automated solution referred to as "lazy trading".

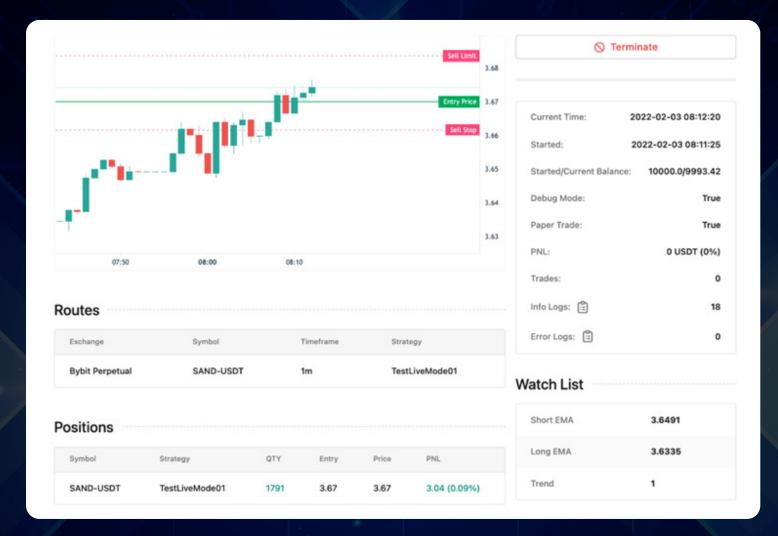
The rapidly growing use of Artificial Intelligence in trading is evidence of its effectiveness, as it enables firms to use vast stores of data to detect stock market trends and patterns quickly and make decisions reliably. Its capabilities to rapidly process and assess big masses of data, as well as identify complex trading patterns, allow firms to make informed buying and selling decisions in real-time and significantly increase their profits.

Al-powered algorithms

Trading strategies powered by artificial intelligence have grown in complexity as the systems learn from their own experiences. Through this, users can reap numerous advantages, such as:

- Al software uses historical data to recognize patterns in stock price movements in order to determine the optimum strategy for an investor.
- Al programs can use data from news sources and social media to make informed predictions when trading on the stock market, using an assortment of data much more expansive than what is offered through traditional technical analysis.
- Speed trading just got quicker. With stock trading relying on split-second decisions, trading Al apps can help save you time and cash by providing automated, immediate decisions and actions.





X AI is using X GPT to create trading indicators, strategies, and trading algos.

Python also enables the usage of algorithms with optimized executions by making use of vectorized operations. This gives traders the ability to quickly test ideas and get better results faster.

Testing and developing of X Trading is still in progress, and the process of making it available to the public will only begin once tests have been done to ensure its machine learning can accommodate various financial conditions.



Roadmap

By creating and leveraging an advanced Al model, layer-2 blockchain, and DApps, X Al seeks to become a leader in the Al-based utility products space. The X Al roadmap also set outs development goals and objectives that promote growth, stability and security of the platform, along with ensuring user experience and protecting user data privacy.

The X AI roadmap outlines the team's future aims and objectives for creating and using its Advanced AI model, AI-based utility products, layer-2 blockchain, and ecosystem of DApps and utilities.

This plan underscores the team's commitment to fostering the potential of AI and blockchain technology and provides a clear roadmap for developing and directing the business and its technology. The X AI roadmap highlights objectives that promote growth, stability, security of the platform, protect user data privacy, and deliver an exceptional user experience.

It also sets out planned features and releases with the goal of becoming a leader in the Al-based utility products space.



Phase 1

At launch, phase 1 will feature a beta version of X Draw and X GPT and is estimated to last between 1 to 3 months, depending on the speed of our team's development. This phase focus on building the fundamental and adoption of \$XAI token.

- 20,000 \$XAI holders
- X Draw version 1
- X GPT version 1
- CoinGecko Listing
- CoinMarketCap Listing
- Trust Wallet Dapp Inclusion
- Token Pocket Dapp Inclusion
- Media Releases on News Editorial Site
- CEX Listing Adoption
- Billboard Marketing
- CoinZilla and Crypto Platform Banner Marketing
- Offline Roadshow

Phase 2

Phase 2 will begin in the second quarter following the token launch. In Phase 2, the focus will be on driving token adoption, laying the groundwork for commercial usage, and establishing an ecosystem with automated buyback of \$XAI tokens to encourage businesses to utilize AI technology and to provide API documentation for developers.

- 50,000 \$XAI Holders
- X Payment Processor MVP and Beta
- X Draw Premium Version
- X GPT Premium Version
- X Al Trading Analytics Beta
- More CEX Listing on Top Tier Exchanges.
- Cryptocurrency conventions and sponsorship

Phase 3

Phase 3 will begin in the 3rd Quarter following the token launch. The focus of this phase is to develop a self-deployable NFT platform, a premium version, and to generate revenue for the token team. This revenue will be used to bolster the growth of the token by listing it on more centralized exchanges, conducting repurchases. Furthermore, the team will recruit on a global scale and create new use cases, integrating Al technology to enhance the utility and value of the token.

- 100,000 \$XAI Holders
- X Trading Premium Version
- X Draw NFT Platform
- X Payment Processor Platform for Commerical
- X GPT Further Upgrades
- Cross Bridge / Worm Hole for ETH, Polygon Chain
- CEX Listing & Adoption on Top 5 Exchange



ChatGPT Versus XAI

Comparison Table		X/I XAI	
	ChatGPT		
% of Al Trained on Blockchain Subject Matter	<1%	>98%	
Code Debugging Ability	×	•	•
Live On-chain Data	×	•	
Internet Connectivity	×	~	
Blockchain Analytics	×		
Generate Solidity Code	×	~	
Market outlook and Technical Analysis	*		
SDKs and API for Blockchain Use-Case	*	~	
AML Blockchain Solutions	*		
Ability to Audit Smart Contracts	*	~	
Gaussian Mixture Model	×		