

Last updated 30th of May 2023 – Patent Pending (Centralized & Decentralized)

OscarAI Network

Introduction

The OscarAI Network is a layer one blockchain that is being created in order to allow a decentralized network of users with GPUs and AI/ML training-capable hardware to be distributed for use by users in need of AI/ML-compatible computing power instances.

An easy way to put it, is thinking about two sides: The Miners (aka the 'providers' of computing power) and The Developers (aka the 'users' of the computing power shared)

The major opportunity for such a network arises due to the fact that GPU miners are currently barely profitable with their mining endeavors.

GPU miners used to be very profitable up to September, 2022 – The date that Ethereum has moved from a Proof-of-Work consensus needing a lot of computing power primarily supplied by GPUs, to Proof-of-Stake, a more efficient and less energy-consuming method of processing and verifying transactions without the need for GPUs.

A big percentage of miners are still holding their GPU rigs (aka their powerful computers) and still try to recoup losses accrued due to Ethereum mining, they do so by mining coins that resemble the older version of Ethereum with support to GPU-compatible Proof-of-Work algorithms, most are forks (duplicates of the older version of Ethereum), without a lot of real-world use case other than trying to promote Proof-of-Work.

Most institutional investors currently focus on ESG and a sustainable future, thus making lesser investments in power-hungry networks like these GPU-Supported PoW Blockchains, directly hitting miner profitability and future opportunity/growth potential.

At the same time, as of mid-2023, AI/ML cloud training instances are becoming pricier by the day with large corporations such as Amazon, Google, IBM, Microsoft etc. scrambling to get supply of AI/ML-capable hardware for the needed demand.

Big corporations as those listed above prefer getting new and more efficient AI/ML chips (mainly due to the extra hassle of service/repairs/technical support), creating a shortage in new chips, leading chip manufacturers like NVidia to get big contracts for future chips with these corporations, making efficient AI/ML chips skyrocket in price, making it unviable for most small businesses to be able to afford.

OscarAI is essentially an autonomous decentralized blockchain that plans to close the gap for the growing demand in AI/ML computing power and GPU miners/individuals that have or plan to buy hardware on their behalf to supply the growing need.

Anyone, anywhere can use their GPU rig and/or AI/ML compatible hardware when not it use, supply it to the blockchain network for competing prices that change with supply/demand and start earning income on their hardware.

Additionally, OscarAI plans to capitalize also on different applications that are resource-heavy like video rendering, running complex scripts, etc. and also has security features that recognizes and learns patterns to prevent instances from running illegal activities.

Technical Details

OscarAI is a Proof-of-Work blockchain that works by 2 main algorithms: Proof-of-Work – The network collects data that proves the work has been done (aka the AI/ML training data has been processed for the end-customer) and Proof-of-History – a Ledger that stores encrypted identifiers that can prove transactions (sending OAI coins from one wallet to another) as well as essential hash information that proves that received AI/ML training jobs have been complete thus the transactions are legitimate.

The network makes sure it's fool-proof by sending random hashes to multiple random nodes to be processed and verified (similar to a Proof-of-Stake hash but instead of stakers, OscarAI uses the online miners that complete tasks as nodes)

An example of OscarAI running TensorFlow:

TensorFlow is an open-source software library for dataflow and differentiable programming across a range of tasks, including machine learning and neural network-based computations. TensorFlow is used by many organizations for training and deploying machine learning models.

In the context of OscarAI, TensorFlow can be used to run machine learning algorithms in a distributed and peer-to-peer manner. This is made possible by the decentralized architecture of the OscarAI blockchain network.

Here is how TensorFlow runs with OscarAI:

1. A user who needs to run a machine learning model submits the request to the OscarAI network.
2. The request is then broadcast to all the nodes on the network.
3. Nodes on the network with available computing resources and compatible AI hardware can respond to the request and offer to provide their computing resources for the requested task.
4. The user can then select the nodes they want to use for the task based on the price, computing power, location, and other factors.
5. TensorFlow can be used to distribute the machine learning algorithm across the selected nodes, with each node running a portion of the algorithm.
6. The results of each node's computation can be shared and combined to produce the final result of the machine learning task.

In terms of security, TensorFlow can be configured to use secure communication protocols like SSL/TLS to encrypt communications between nodes, ensuring that data and machine learning models are kept confidential. OscarAI also implements additional security measures like access control and identity management to further protect the network and its users.

Overall, OscarAI is an excellent peer-to-peer cloud solution for running machine learning tasks in a distributed manner for applications like TensorFlow.

A viable financial model with real use-case and demand

Due to the unique opportunity of constant development in the field of AI, there is growing demand in machine learning instances that can handle AI/ML training.

OscarAI is creating an ecosystem that will allow anyone from anywhere to 'rent out' their compatible hardware to the field of the future with constant need for corporations, developers and small businesses looking to implement AI/ML to their products.

OscarAI is acting as an intermediary between the supply/demand of AI/ML cloud training instances, earning a certain percentage for its development team, allowing the team to grow the ecosystem and keep developing new features.

A future-proof blockchain

In order to excel in development, creativity and leadership, the OAI coin will be managed by a DAO that will first be instated by the original co-founders, team, advisors and contributors but will at a later stage allow for changes if enough voting is gone through by the majority of token holders.

A DAO (Decentralized Autonomous Organization) is necessary for future versatility as well as making sure that the best interests are for its holders.

Efficiency and Cost-Benefit

Amazon Web Services (AWS) charges 3888\$ for a month of computing power using their p3.2xlarge instance (powered by a V100 GPU).

While GPU miners that have a mining rig equivalent in computing power (6x 1080Ti), have earned in the month of April, 2023 a mere 69.18\$ (Data from NiceHash, a leading mining pool), that's not enough to cover the electric bill in most places around the world (for example in Israel, the electric bill to run such a mining rig would cost roughly 165\$).

This example shows the exact reason for the need of a blockchain like OscarAI, the network would allow to close the massive price gap disparity that is currently in the AI field, corporations pay top-dollar for services just of the fact that services such as AWS doesn't allow for competition (not having a system allowing users to give their computing power) as well as not growing in the needed pace to meet demand due to chip shortages.

Market Analysis

OscarAI is a cutting-edge AI-powered platform that leverages blockchain technology to facilitate secure and private data exchange. The platform has the potential to disrupt multiple industries, including healthcare, finance, e-commerce and graphic studios.

According to a recent report by Grand View Research, the global machine learning market size was valued at USD 8.43 billion in 2020 and is expected to expand at a compound annual growth rate (CAGR) of 43.8% from 2021 to 2028. The report also suggests that the rising adoption of cloud-based technologies, increasing demand for intelligent virtual assistants, and the emergence of advanced technologies such as deep learning and natural language processing are some of the key factors driving the growth of the machine learning market.

OscarAI's unique combination of AI/ML training and blockchain technologies can even help healthcare organizations address some of their most pressing challenges. For instance, the platform can facilitate secure data sharing between different healthcare providers, ensuring that patient data is accurate, up-to-date, and accessible when needed. It can also help healthcare organizations improve their research capabilities by analyzing large data sets and identifying patterns and trends that can inform treatment decisions.

Furthermore, as a project backed by a well-vetted team and significant backers, OscarAI has the potential to experience significant growth in the coming years. The global cryptocurrency market size was valued at \$2.2 trillion in 2020 and is expected to grow at a CAGR of 11.2% from 2021 to 2028, reaching \$4.94 trillion by 2028. Additionally, the platform's focus on secure data exchange and privacy aligns well with the growing demand for decentralized technologies, which are increasingly seen as a more secure and private alternative to traditional centralized systems.

In conclusion, OscarAI's unique combination of AI and blockchain technologies has the potential to disrupt multiple industries. The platform's ability to facilitate secure and private data exchange could be particularly valuable in industries such as healthcare, e-commerce and more.

<https://oscarai.network/>