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Patent Search

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Abstract:

The present invention relates to a blockchain system for resolving security flaws and risks in the commercial Internet of Things (IoT) with the assistance of artificial intelligence and machine learning (ML). The system utilizes a decentralized blockchain ledger to record and verify IoT data and transactions, while AI algorithms analyze the data to detect patterns, anomalies, and security threats. The system may also utilize smart contracts on the blockchain to enforce security rules and automate processes in the environment. Additionally, the system may incorporate innovative consensus mechanisms, such as sharding or off-chain solutions, to address scalability challenges. Implementing the security measures involves recording IoT data on the blockchain, analyzing the data with AI algorithms, and utilizing smart contracts to enforce rules.

Complete Specification

Description:[001] The present invention relates to the field of blockchain systems. More specifically, relates to a blockchain system assisted in resolving security flaws and risks in the commercial Internet of things with the help of AI and machine learning.

BACKGROUND OF THE INVENTION

[002] The following description provides the information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] The commercial Internet of Things (IoT) has revolutionized industries by enabling seamless communication and connectivity among various devices, creating efficient and automated systems. However, the widespread adoption of IoT has also raised concerns about security flaws and risks, as interconnected devices are vulnerable to cyber threats, data breaches, and unauthorized access. Existing solutions have limitations in addressing these challenges, as they often lack robustness, scalability, and adaptability. Therefore, there is a need for innovative technologies to enhance the security of IoT systems. The present invention titled "Blockchain System Assisted in Resolving Security Flaws and Risks in the Commercial Internet of Things with the Help of AI and Machine Learning" aims to overcome these limitations by leveraging the combined power of blockchain, artificial intelligence (AI), and machine learning (ML) to provide advanced security solutions for IoT environments.

[004] Blockchain technology, originally developed for digital currencies like Bitcoin, has gained attention for its inherent security features, such as distributed consensus, immutability, and transparency. By utilizing blockchain, the present invention aims to establish a decentralized and trust-based system for securing IoT data and transactions. The blockchain ledger can record and verify IoT data in a transparent and tamper-proof manner, reducing the risk of data manipulation or unauthorized access. Additionally, smart contracts, which are self-executing agreements on the blockchain, can be employed to enforce security rules and automate processes in the system.

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