

BLOCKCHAIN-ENABLED DATA ANALYTICS FOR ENSURING DATA INTEGRITY AND TRUST IN AI SYSTEMS

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ABSTRACT

The rapid advancement of artificial intelligence systems has brought about many possibilities and issues in multiple fields. Indeed, recent advances in AI algorithms have already provided capabilities on data analysis and making decision with incomparable efficiency; therefore, reliability and credibility of available data remain as priority concern. Current architecture of a centralized data warehousing framework makes it open to fraud, has vulnerability of single point failure, and the process is non transparent in nature. To that end, this paper aims at review the prospect of combining blockchain with big data to overcome these hurdles and build confidence in AI solutions (Jennath, 2020). As it has been noted, blockchain is highly resistant to changes and distributed which can create the foundation for the data integrity across the phases of data life cycle: data gathering, data storage, data processing, and data utilization. The suggested solution includes storing, processing, and verifying information using the principles of blockchain, which would create efficient record-keeping and secure data-sharing environment for multiple parties. Besides, the present rules of data governance can be automated and made into smart contracts to guarantee compliance and trackability. This paper aims to review some of the principles of expanding blockchain-related enhanced data analytics such as how data is stored, methods of consensus, and how AI models are trained and integrated with the blockchain. Using a practical branch as an example, additional material and possible issues are studied to give a comprehensive view of this emerging area of study.

KEYWORDS: *Blockchain, AI algorithms*

Article History

Received: 17 Nov 2021 | Revised: 20 Nov 2021 | Accepted: 23 Nov 2021
