Decentralized AI: Leveraging Blockchain for Data Privacy

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Article Link: https://journals.brainetwork.org/index.php/jcai/article/view/41

DOI: https://doi.org/10.69591/jcai.2.1.4

Volume 2, Issue 1, 2024

Funding
No

Citation: Aslam, S. (2024). Decentralized AI: Leveraging Blockchain for Data Privacy. *Journal of Computing and Artificial Intelligence, 2*(1)

Conflict of Interest: Authors declared no Conflict of Interest

Acknowledgment: No administrative and technical support was taken for this research

Article History

Submitted: Mar 01, 2024
Last Revised: Apr 20, 2024
Accepted: May 19, 2024

An official Publication of
Beyond Research Advancement & Innovation Network, Islamabad, Pakistan

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Abstract

This paper presents a novel approach to decentralized AI that utilizes blockchain technology to enhance data privacy. By combining federated learning with blockchain's immutable ledger, we create a secure framework that allows multiple parties to collaborate on AI model training without exposing sensitive data. Our findings show that this method not only preserves privacy but also improves model performance through diverse data contributions. This paradigm shift offers significant implications for industries requiring stringent data protection, such as healthcare and finance.

Keywords: Decentralized AI, blockchain, data privacy, federated learning, healthcare.