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Cyber Security in Blockchain

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Abstract: *Blockchain technology has gained significant attention for its potential to enhance cyber security in various digital domains. It provides a decentralized and tamper-resistant framework that ensures transparency, data integrity, and trust without the need for centralized authorities. By utilizing cryptographic algorithms and consensus mechanisms, blockchain effectively mitigates cyber threats such as data breaches, identity theft, and Distributed Denial of Service (DDoS) attacks. This paper discusses the role of blockchain in strengthening cyber security, its working principles, and its applications in secure data management. Furthermore, it addresses existing challenges including scalability, energy consumption, and privacy concerns. The study concludes that blockchain presents a promising approach for achieving robust and secure digital infrastructures in the modern cyber environment.*

Keywords: Blockchain, Cyber Security, Data Integrity, Cryptography, Decentralization

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