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Secure Decentralized Blockchain Based Web Application for Medical Records

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Secure Decentralized Blockchain Based web Application for Medical Records

The online storage and sharing of electronic health records has undergone a paradigm shift in recent years. The introduction of a centralized cloud computing concept to streamline records transfer between patients and healthcare providers has been an easy task. As a result, the availability of electronically stored health records with minimal operational costs is made possible, but the primary concern is related to the privacy and security of records. How can we securely exchange medical documents online while maintaining strong security standards? This research suggests a framework that fuses online federated learning with blockchain technology. In particular, we develop a reliable access control system using smart contracts to provide secure Health records sharing between various patients and healthcare professionals. Over a web 3.0-based website, we demonstrate a blockchain implementation prototype in a real-world data-sharing scenario. Our suggestion offers a practical defense against potential dangers for trustworthy data exchanges of sensitive health information. Moreover, compared to existing models, this approach provides the highest level of protection for sharing medical records.

Keywords: Decentralized, Federated Learning, Web 3.0, Blockchain , Medical Records.