ABSTRACT

Biometric Authentication Using Blockchain

Blockchain has emerged as a leading technology that ensures security in a distributed framework. The proposed model develop a secure system which uses the amalgamation of biometrics and blockchain technology and develop a self-correcting template and parameter tamper-proof blockchain architecture for biometrics recognition. This model protect different stages of the biometrics recognition pipeline, specifically feature extraction, matching, and template storage. Secure an encrypted fingerprint template by a symmetric peer-to-peer network and symmetric encryption. The fingerprint is encrypted by the symmetric key algorithm and then is uploaded to a symmetrically distributed storage system, the Inter Planetary File system (IPFS). Uses fingerprint matching using minutiae extraction techniques to authenticate the user.

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