PROJECT ORION

Invention Disclosure

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1. Project Overview

Project Orion is a conceptual system for creating verifiable digital records of important files without uploading the original file to a third-party service.

The system generates a cryptographic fingerprint of a file using the SHA-256 hashing algorithm. This fingerprint can then be recorded on a public blockchain to create an independently verifiable record that the specific file existed at or before a particular point in time.

2. Proposed Method

The proposed process is:

1. The user selects a file on their device.
2. A SHA-256 fingerprint of the file is generated locally.
3. The original file remains on the user's device.
4. The fingerprint is recorded in a blockchain transaction.
5. The transaction details and corresponding proof information are preserved.
6. At any later date, the same file can be hashed again and compared with the recorded fingerprint.

If the fingerprints match, the verifier can establish that the file being presented is identical to the file whose fingerprint was recorded earlier.

3. Potential Applications

The system may be used for:

- invention and idea documentation
- copyright and creative works
- source code and software releases
- contracts and commercial documents
- research papers and datasets
- corporate records
- digital evidence
- confidential documents and trade secrets

4. Key Design Principle

The original file does not need to be published or stored on the blockchain.

Only its cryptographic fingerprint is used to create the proof.

This allows the existence and integrity of a document to be demonstrated while the underlying content can remain private.

5. Demonstration Purpose

This document is fictional and has been created solely to demonstrate blockchain-based timestamping and file verification.

After this document is converted into a PDF and timestamped, even a small modification to the PDF should produce a different SHA-256 fingerprint.

End of Document

Demo document for BlockchainProof.org