Model Engineering College Ernakulam
Department of Computer Engineering
B. Tech. Computer Science & Engineering
CS 451 Project Preliminary
Project Proposal
Copyright Protection and Violation Detection Using
Blockchain

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Abstract

Copyright refers to the legal right of the owner of intellectual property. Copyright ownership gives authors exclusive right to use their work and share it with those who they deem fit. Copyright protects the right of the authors, that is, the owners of the intellectual properties.

With the development of technology and growth of the internet, services and contents are being distributed online via delivery channels and sharing systems. Because these platforms are widely used, tracing violations of copyright and ensuring secure distribution of content has become a problem for content owners. Copyright infringement is the use or production of copyright-protected material without the permission of the copyright holder. It is a big challenge in today's world. The aim is to design a system involving a Blockchain network to which images can be uploaded and checked for copyright protection and violation detection.

1 Proposed System

1.1 Problem Statement

Today, everyone relies on digital content, which results in a significant number of copyright violations happening on a daily basis. With the development of the Internet industry, the creation and realization of all kinds of digital copyright works are developing from traditional paper form to electronic form. In view of the current environment, digital rights protection and trading have not achieved synchronous development. There are many problems and loopholes, which lead to frequent infringement of digital copyright. Currently, there are no effective ways to protect the rights and interests of the originators, which seriously undermines their initiative to create. This project aims to address the serious problem of copyright violations of images and provide a means for owners to protect their work.

1.2 Proposed Solution

The aim is to create a system for protecting copyrights and also for detecting violations of copyrights, using Blockchain technology. The system includes:

- **Uploading image:** Users are able to upload images using a client application.

- **Generating digital fingerprint:** Digital fingerprints of images can be generated using perceptual hashing algorithms, which can be stored in Blockchain network and can be used for comparison whenever a new image is to be uploaded.

- **Copyright violation detection:** For deducing whether a copyright violation is likely to occur, the generated image's digital fingerprint is compared against stored fingerprints. If similar fingerprints are present, then a copyright violation has taken place and the information of the user who has uploaded the image is passed to the owner.

References

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Internal Guide:

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