Enhancing Image Plagiarism Detection Through Perceptual Hashing and Edge Analysis

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Jayanth Potluri ; Deepak Venkatesan ; Harika Gummadi ; Karthik Alladi ; G. Ramesh **All Authors**

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Abstract:
In a time when digital photography is so common, the significance of preserving the integrity of visual content cannot be stressed. In this study, a novel combination of perceptual hashing and edge analysis methodologies is used to improve picture plagiarism detection. This method's careful design is centered on the challenging problem of finding visually identical or altered photographs within the large digital environment. A useful method for identifying photocopying is perceptual hashing, which has roots in computer vision. It recovers unique image fingerprints that exhibit resilience to slight alterations. Parallel to this, we evaluate the intricate structural elements of photographs using edge detection techniques, making it simpler to discern copied content from the original source.

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Contents

In today's digital era, the widespread dissemination of visual content across a multitude of media platforms has presented a significant challenge: the preservation of the authenticity of digital images. While the internet provides immediate access to a vast reservoir of information, it has simultaneously given rise to a vast sea of unorganized data [1]. As digital imagery gains increasing prominence in fields such as academia, journalism, advertising, and creative pursuits, the risk of image-based plagiarism has surged in parallel. Plagiarism, characterized by the unauthorized replication and reuse of information, has become an endemic issue, largely facilitated by the effortless accessibility of information on the internet [1]. This issue transcends the confines of academia and permeates numerous sectors, including media, scientific research, and political discourse [2].

Authors

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Keywords

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