

INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with UNIVERSITY OF WESTMINSTER

Design web application for Intelligent Violence Video Detection System (VDetectify)

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Abstract

This project aims to develop a video and image violence detection system using machine learning and image processing techniques. With the growing trend of recording and distributing violent events across multiple platforms, the need for effective violence detection systems has increased significantly. The Intelligent Violence Video Detection project addresses the growing need for effective violence detection systems. Unfortunately, in the busy and stressful lifestyle of today's society, instances of frustration and hurtful emotional behavior are commonplace. This can lead to violations of rules and regulations and even violence, and such events are often difficult to detect and control. The proposed solution involves the use of A Convolutional Neural Network (CNN) that has undergone training using a substantial dataset of annotated images and videos, with an architecture consisting of multiple layers responsible for learning features and making predictions.

The effectiveness of the violence detection system is assessed by utilizing metrics such as accuracy, validity, and recall. The findings demonstrate that the proposed solution achieves exceptional accuracy and effectively identifies instances of violence within videos and images. In conclusion, the proposed solution is a promising approach to detect violent events in videos and images using machine learning and image processing techniques. Future work can be done to further improve the accuracy and efficiency of the system.

Keywords: The identification of violence, employing machine learning techniques, image processing algorithms, convolutional neural networks (CNNs), computer vision methodologies, deep learning models, video analysis

Subject Descriptors

The Intelligent Violence Video Detection project utilizes artificial intelligence, specifically machine learning and deep learning techniques, to detect instances of violence in videos and images through image processing methodologies. This requires the application of computer vision and image analysis as well as video analysis to interpret and extract meaningful information from visual data. Deep learning, with its ability to learn and extract complex features from data, is a key component of the project.