Using CNN in Surveillance Videos for Recognizing Human Actions Based on Machine Learning in Examination

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Abstract: *Video analytics is the process of processing a video, obtaining data, and analyzing the data to derive domain-specific information. In recent years, examining live surveillance films for recognizing events that occur within its coverage area has become increasingly important, in addition to analyzing any video for information retrieval. Face identification from recordings is easy when training models are used. Estimating skin colour aids hand detection. This study project aims to detect suspicious acts such as object exchange, new person admission, peeping into another's answer sheet, and person exchange using footage captured by a security camera during exam. People are paying greater attention to the fairness of exams these days, therefore detecting anomalous conduct to ensure examination order is important. Most of the current methodologies propose a fraudulent model. We extract the optical flow of video data in this system and present a 3D convolutional neural networks model to solve the problem. Face recognition, hand recognition, and detecting contact between the face and hands of the same person and that of distinct people are all required. The automation of suspicious activity detection' will aid in lowering the mistake rate associated with manual monitoring.*

Keywords: Video Surveillance, Anomaly Detection, ANN-Based Sparsity Learning, Suspicious Activity

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