

Suspicious Activity Detection Using Video Surveillance

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Abstract: *Suspicious Activity is predicting the part or joint locations of a person from an image or a video. This project will detect suspicious human Activity from real-time CCTV footage using neural networks. Human suspicious Activity is one of the key problems that has been studied for several years. It is important because of the complete number of applications that can benefit from Activity detection. For example, human pose estimation is used in applications including video surveillance, animal tracking, and behaviour understanding, sign language detection, advanced human-computer interaction, and marker less motion capturing. Low-cost depth sensors have limitations like limited to indoor use, and their low resolution and noisy depth information make it difficult to estimate human poses from depth images and videos. Hence, we plan to use neural networks to overcome these problems and find solution on it. Suspicious human activity recognition from surveillance video is an active research of image, video processing and computer vision. Through the visual surveillance, human activities can be monitored in sensitive areas and public areas such as bus stations, railway stations, airports, banks, shopping malls, schools and colleges, parking lots, roads, etc. to prevent terrorism, theft, accidents and illegal parking, vandalism, fighting, chain snatching, crime, and other suspicious activities. It is very difficult to watch public places continuously, therefore an intelligent video surveillance is required that can monitor human activities in real-time and categorize them as usual and unusual activities; and can generate an alert. The research being carried out is on images and videos. Also, none of the papers published tries to use CNNs to detect suspicious activities with such accuracy.*

Keywords: Suspicious, surveillance, vandalism, snatching

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