

Human Activity Identification

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Abstract: Modern human activity detection systems are mainly trained and used on video stream and image data that understand the features and action variations in the data with similar or related movements. Human activity recognition plays a remarkable role in human-to-human and human-computer interaction. Manually driven systems are very time consuming and expensive. In this project, we aim to develop a low-cost and faster human activity detection system that can process both video and image to detect the performed activity in real-time, thereby assisting the end-user in various applications such as surveillance and purpose support, etc. In addition to being cost effective, this system will be a user-based system that can be integrated with a large number of applications that will save time and help with various activities that require a recognition process, saving a great deal of time with good accuracy. A challenging task of detecting human activity from video sequences or still images is due to issues such as background noise, partial occlusion, changes in scale, angle of view, lighting, and appearance. A multi-activity detection system is required by many applications, including video surveillance systems, human-computer interaction, and robotics to characterize human behavior. In this work, we provide a detailed overview of recent and recent research advances in the field of human activity classification.

Keywords: Human Activity Recognition, Pose Detection, Convolutional Neural Networks, Deep learning, Pose net

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