Intelligent Attendance Monitoring System Based on GAIT Features Using 3D CNN

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Abstract

This project utilizes network which is (CNN) and a deep analysis of the way people move, known as GAIT-based authentication. It takes videos from students, trims them down to the most important frames, and calculates the position of the person in the frame using BlazePose, so that the features do not change from one frame to the next. The Well-known techniques are being used which includes a hybrid deep learning setup that combines 3D CNNs and LSTM, are employed to extract the most out of the spatial and temporal information which would be present in the videos. The attendance records are sent to a secure cloud storage, where they can be easily accessed and managed. The result is a reliable, practical, and private system that requires minimal human intervention and can operate smoothly in various lighting and atmospheric conditions.

Keywords

Attendance Monitoring, Cloud Integration, CNN, Deep Learning, GAIT Recognition, LSTM, Pose Estimation, Spatio-Temporal Features, 3D CNN.