

Survey on Suspicious Activity Detection using Deep Learning

Namithadevi N N, Bhuvana S D, M D Tarun, Seema Reddy K, Shreyas Gowda P

Department of Computer Science and Engineering

Vidya Vikas Institute of Engineering and Technology, Mysore, India

namithadevi19@gmail.com, bhuvanasd20@gmail.com, mdtarun1008@gmail.com

seemareddy004@gmail.com, shryasegowda@gmail.com

Abstract: *The integration of computer vision and artificial intelligence in an automated video detection system is crucial for preventing security issues in public places. Traditional surveillance methods are insufficient in detecting abnormal behaviors, so an automated system is needed. The project aims to revolutionize surveillance by using deep learning techniques, particularly CNN models, to analyze video footage uploaded through a web application. This involves segmenting the video into frames, extracting features using CNN, and identifying irregular or suspicious activities. The system's functionality includes background and foreground extraction, motion estimation, and anomaly detection, allowing for efficient differentiation between normal and abnormal behaviors in surveillance videos. This study aims to bridge the gap in surveillance technology by integrating computer vision, image processing, and artificial intelligence, enabling swift identification and flagging unusual actions in surveillance footage. It also ensures prompt alerts via email upon detecting potential security threats. This research contributes to the enhancement of surveillance systems and highlights the importance of addressing evolving security challenges in contemporary urban environments.*

Keywords: Classification, Deep learning, CNN, Anomaly Detection, Web Application, email

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