Abstract

This work addresses the important problem of discovery and analysis of social networks and link between frequent people observed from surveillance video footage where large amount of video data is collected routinely. A computer vision approach has been applied for detecting and extracting people within a group using HAAR classifier. This technique allows us to recognizing people by doing similarity matching between training faces and unknown detected face image. Therefore it is required to obtain high resolution face images of people in order to extract intrinsic feature information of facial images used in detection of person's faces. We present a novel frequent pattern mining based approach in the domain of frequent person detection i.e. apriori to solve frequent association problem between social networks obtained from low level task of face recognition. Our approach is illustrated with promising results from a fully integrated camera system.

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Index Terms

Computer Science

Pattern Recognition

Keywords

Dynamic social network analysis

Link analysis and mining

Data mining

Frequent pattern mining

Knowledge Discovery

Computer Vision

key frame extraction

key frame selection.