

PEOPLE RE-IDENTIFICATION IN A CAMERA NETWORK

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ABSTRACT

In this research, we present an appearance based method for people re-identification. It consists in the extraction of two types of features related to human appearance, color histograms and SIFT features. Images are captured from surveillance videos. For every image, the two types of features are combined to create a two dimensional signature that represents the contained individual. The goal is to make this signature as distinctive as possible. The signatures are arranged into pairs to form positive examples (two images of the same individual) and negative examples (two images of two different individuals). Pairs are fed to a machine learning algorithm. The algorithm is trained to find the most discriminative model. AdaBoost is what we used to perform this task. The algorithm presented in this thesis has been tested on several datasets (ViPER, CAVIAR, 3DPes).