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Gender Recognition with Deep Belief Networks

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Abstract : A gender recognition system is able to tell the gender of the given person through a few of frontal facial images. An effective gender recognition approach enables to improve the performance of many other applications, including security monitoring, human-computer interaction, image or video retrieval and so on. In this paper, we present an effective method for gender classification task in frontal facial images based on deep belief networks (DBNs), which can pre-train model and improve accuracy a little bit. Our experiments have shown that the pre-training method with DBNs for gender classification task is feasible and achieves a little improvement of accuracy on FERET and CAS-PEAL-R1 facial datasets.

Keywords : gender recognition, beep belief net-works, semi-supervised learning, greedy-layer wise RBMs
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