

Two Concurrent Convolution Neural Networks TC*CNN Model for Face Recognition Using Edge

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Abstract : In this paper we develop a model that couples Two Concurrent Convolution Neural Network with different filters (TC*CNN) for face recognition and compare its performance to an existing sequential CNN (base model). We also test and compare the quality and performance of the models on three datasets with various levels of complexity (easy, moderate, and difficult) and show that for the most complex datasets, edges will produce the most accurate and efficient results. We further show that in such cases while Support Vector Machine (SVM) models are fast, they do not produce accurate results.

Keywords : Convolution Neural Network, Edges, Face Recognition , Support Vector Machine.

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