

METHOD AND SYSTEM FOR DETERMINING AUTHENTICITY OF AN OFFICIAL DOCUMENT

ABSTRACT

A method of determining authenticity of an official document includes extracting image data of a plurality of security features of the official document from an image of the official document; applying a trained neural network to the extracted image data to determine a sharpness of each of the security features on the image of the official document; and determining whether the official document is authentic based on a sharpness classification of the security features. Training the neural network includes training a multi-label classification model to classify a plurality of regions of interest. The regions of interests are spatially distributed on a labeled training image, and each label corresponds to a respective one of the regions of interest. Training the neural network further includes applying a spatial attention module to at least one layer of the neural network to learn a position and at least one attribute of each of the regions of interest, and optimizing parameters of the neural network based on optimizing a loss of the multi-label classification model over a plurality of labeled training images.

FIG. 1