Convolutional Neural Networks for Image Steganalysis

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Abstract

© 2016, Springer Science+Business Media New York.Mathematical models based on human neuronal network behavior have recently become extremely popular and arouse interest as a solution of various computer vision problems. One of these models—Convolutional Neural Network—has been proven to be very efficient for object recognition problems and resembles principles of visual processing held by animal visual cortex. In this research, we propose a new approach to performing steganalysis on JPEG images using Convolutional Neural Networks. This approach allows to detect hidden embedding without computing features of an image predefined by empirical observations and obtain results comparable to state of the art methods of JPEG image steganalysis.

Keywords

Convolutional neural network, Image processing, Stegananlysis