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# Text Region Extraction for Noisy Spam Image

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## Abstract

In this paper, the problem of spam filtering for images, a type of fast-spreading spam where the text is included in images to overcome the text-based spam filter. One common method for detecting spam is the optical character recognition system (OCR) that detecting and recognizing the text embedded, following by a classifier which distinguishes spam from ham. Nevertheless, the spammers begin hiding image text for preventing OCR from detecting spam. To recompense for the shortages of the OCR system, a method based on the detection algorithm is proposed for the text region. To estimate the performance of the projected system, the methodology was applied to a

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