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A Review on Automatic Image Forgery Classification Using Advanced Deep Learning Techniques

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Conference paper | [First Online: 25 November 2022](#)

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Part of the [Lecture Notes in Networked and Systems book series](#) (LNNS, volume 522)

Abstract

Digital images are the representation of real-world objects and are considered as an evidence in many scenarios. Copy-move forgery is a common image forgery method. The technique involves copying a segment or part of the picture inside a similar picture is called as copy-move forgery. An effective and

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dependable technique has been created by various authors for recognizing these forgeries for restoring the image credibility. Passive approaches of image forgery detection are very hard to achieve. Copy-move, cut-paste, image splicing, image retouching and lightening condition are the examples of independent forgery techniques. Various techniques have been used by various authors like deep learning, convolution neural network, median filtering detection based on CNN, copy-move forgery detection, ringed residual, discrete cosine transform, U-Net, image splicing forgery detection, etc., with good accuracy on publically accessible databases like CASIA, dataset series of MICC, CoMoFoD, BSDS300, etc. In this paper, we have done a critical analysis of these image forgery detection technologies and the dataset available publically. Comparative analysis based on techniques, model, dataset and accuracy has been performed, and they achieve good accuracy as well.

Keywords

CNN **Copy-move forgery** **Cut-paste**

Image splicing

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About this paper

Cite this paper

Singh, A.K., Sharma, C., Singh, B.K., Suryani, E. (2023). A Review on Automatic Image Forgery Classification Using Advanced Deep Learning Techniques. In: Tiwari, S., Trivedi, M.C., Kolhe, M.L., Singh, B.K. (eds) Advances in Data and Information Sciences. Lecture Notes in Networks and Systems, vol 522. Springer, Singapore.

https://doi.org/10.1007/978-981-19-5292-0_1

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DOI	Published	Publisher Name
https://doi.org/10.1007/978-981-19-5292-0_1	25 November 2022	Springer, Singapore

5292-0_1

Print ISBN	Online ISBN	eBook Packages
978-981-19-5291-3	978-981-19-5292-0	Intelligent Technologies and Robotics
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