A review of video falsifying techniques and video forgery detection techniques

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The term video attack has gained attention under the name video forgery. The simplest type of video forgery is copy-move tampering which can be detected by human eyes. The complex type of video forgery is video falsifying which is more professional than copy-move as highly improved techniques are needed to detect a falsified video. The difficulty of detecting video falsifying attack because of changing the semantic meaning of the original videos by creating fake videos can be conducted by editing, combining or generating a new video content. In this paper, several types of video falsifying techniques and video forgery detection techniques are studied and classified, challenges with existing forgery detection techniques are given, and a conclusion of recommended suggestions is presented. Recommendations focus on advanced forgeries such as object motion interpolation forgeries, and dynamic texture inpainting to increase the security against these types of tampering on key frames.

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