Fast Video Completion Using Patch-based Synthesis and Image Registration

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Abstract:

Video completion has many applications in movie post-production, such as removing unwanted objects, artifacts, or logos. Most state-of-the-art video completion techniques are time-consuming in order to ensure spatial-temporal coherence. This paper presents a Fast Video Completion (FVC) technique that is based on patch-based synthesis and image registration. FVC generates key frames without the unwanted objects over the input video using a patch-based synthesis. The rest of the video completion process requires a low computing time using the registered prior frame. The results of the proposed technique show that FVC preserves the spatial-temporal coherence in an acceptable time, that makes the proposed technique is applicable for long videos.

Keywords:

Video Completion Video Inpainting Video Processing Video Editing Object Removal

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