Recognizing Faces with Partial Occlusion using Inpainting

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Abstract

Face recognition as a biometric is gaining popularity as it is widely being used in surveillance as well as for security. One of the disadvantage of face recognition as a biometric is its low recognition rate when a part of face image is lost due to known or unknown reasons. Occlusion on faces can be caused with the knowledge of a user when the user is covering his face or part of the face on purpose. Occlusion can be categorized as sparse occlusion and dense occlusion. The capability of face recognition system achieves its goal if the occluded part can be recovered for recognition of faces. In this paper, a hybrid inpainting approach is followed to recover the lost region of a face. This approach increases the recognition rate of faces that are occluded. Experimental result on hybrid inpainting proves that the recognition rate on faces increases on comparison with existing methods on occluded faces.

References

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Index Terms

Computer Science  Image Processing
Keywords

Face recognition, Occlusion, Inpainting