Submission Title

XTNSR: Xception-Based Transformer Network for Single Image Super Resolution

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Abstract

Single-image super-resolution remains a classically challenging problem to restore high-resolution images. To retrieve the super-resolution image, our method made use of the concept of a deep learning approach. In this work, we improve the low-resolution image to restore the high-resolution image using a deep learning-based method with novel architecture. The fields of image, video, and computer vision tasks greatly benefit from this work. Because previous approaches mostly applied conventional techniques or hand-designed feature-based techniques to enhance the quality of low-resolution images. In addition, we present a novel idea for the Local Feature Window Transformer block and Multi-Layer Feature Fusion Block that will both lower the computational cost of our suggested model and improve its reconstruction efficiency.

Keywords

Single Image Super Resolution, Transformer, Xception, Multi-Layer Feature Fusion

Statements and Declaration

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Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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