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Invention Title	ADVANCED DEEP LEARNING ALGORITHM FOR REAL-TIME IMAGE SUPER-RESOLUTION
Publication Number	02/2024
Publication Date	12/01/2024
Publication Type	INA
Application Number	202341085580
Application Filing Date	14/12/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06T0003400000, G06N0003040000, G06N0003080000, G06T0005000000, G06K0009620000

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Abstract:

The proposed invention introduces an Advanced Deep Learning Algorithm for Real-Time Image Super-Resolution, featuring a convolutional neural network (CNN) arc optimized for processing low-resolution images and generating high-resolution outputs in real-time. Leveraging hardware acceleration with GPUs and specialized pro units, this algorithm significantly reduces computational demands. Trained on extensive datasets containing high and low-resolution image pairs, it learns intricate pa details within visual content. The algorithm's adaptability to diverse scenarios is enhanced through advanced transfer learning techniques. With applications spannin entertainment, healthcare, surveillance, and remote communication, it promises to revolutionize image quality without compromising speed or introducing artifacts. invention is set to redefine how we perceive and interact with visual data, offering unparalleled clarity, precision, and insight across various industries.

Complete Specification

Description:The proposed invention centers on the development of an innovative deep learning algorithm designed to achieve real-time image super-resolution. Th breakthrough technology aims to enhance the quality and clarity of images and videos in real-time applications, including video conferencing, surveillance, and med imaging.

By harnessing the power of advanced neural networks and convolutional neural networks (CNNs), this algorithm can process low-resolution images at an unprecede speed, producing high-resolution outputs with remarkable detail and sharpness. It leverages deep learning's ability to learn complex patterns and textures, effective transforming pixelated or blurry images into crystal-clear visuals.

The invention has far-reaching implications across various industries, including entertainment, healthcare, and remote communication. It promises to significantly i the quality of streaming content, enable more precise medical diagnoses through enhanced medical imaging, and revolutionize how we interact and perceive visual real-time scenarios.

This advanced deep learning algorithm not only represents a significant advancement in image processing technology but also opens up new avenues for applicatio where real-time high-quality image enhancement is crucial for decision-making and user experience. Its potential to elevate the standards of visual data processing a promising innovation in the field of computer vision and artificial intelligence.

Brief background of the proposed invention:
The invention of the Advanced Deep Learning Algorithm for Real-Time Image Super-Resolution is rooted in the relentless pursuit of improving the quality of visual d

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