Patent Search

Invention Title	A SYSTEM AND APPARATUS FOR ADVANCED ENHANCED NEURAL STYLE TRANSFER (NST) METHOD LEVERAGING RESNET ARCHITECTURE FOR HIGH-FIDELITY IMAGE SYNTHESIS
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Abstract:

ABSTRACT A SYSTEM AND APPARATUS FOR ADVANCED ENHANCED NEURAL STYLE TRANSFER (NST) METHOD LEVERAGING RESNET ARCHITECTURE FOR HIGH-FIDELITY IMAGE SYNTHESIS Neural Style Transfer (NST) is a fascinating technology that harnesses the power of deep learning and artistic expression to create visually captivating and unique image synthesis. It operates by combining the content of one image with the stylistic features of another, producing novel artworks that blend the subject and context of the content image with the patterns, textures, and color schemes of the style image. By integrating deep learning and artistic rendering, NST allows the synthesis of visually engaging images that reflect the convergence of human creativity and machine intelligence. The need for Neural Style Transfer emerges from the desire to create authentic and expressive artistic compositions that embody the essence of different styles. Traditional image filters and transformations lack the ability to capture the nuanced features of artistic styles effectively. NST offers a solution by employing pre-trained deep learning models, such as the Residual Neural Network (ResNet50) architecture, to extract high-level features from content and style images. This process enables NST to understand the content's subject and context while assimilating stylistic patterns from the style image. The integration of deep learning and artistic rendering in NST revolutionizes the field of image synthesis by producing visually appealing images that transcend the limitations of conventional editing techniques.

Complete Specification

Description:A SYSTEM AND APPARATUS FOR ADVANCED ENHANCED NEURAL STYLE TRANSFER (NST) METHOD LEVERAGING RESNET ARCHITECTURE FOR HIGH-FIDELITY IMAGE SYNTHESIS

FIELD OF INVENTION

[001] The present invention relates to an Neural Style Transfer (NST) is a fascinating technology that harnesses the power of deep learning and artistic expression to create visually captivating and unique image synthesis. It operates by combining the content of one image with the stylistic features of another, producing novel artworks that blend the subject and context of the content image with the patterns, textures, and color schemes of the style image. The motivation behind NST arises from the limitations of traditional image editing techniques, which often fail to generate truly artistic images that seamlessly merge various styles. NST addresses this challenge by leveraging deep learning models' representational capabilities to understand content and style separately. By integrating deep learning and artistic rendering, NST allows the synthesis of visually engaging images that reflect the convergence of human creativity and machine intelligence.

BACKGROUND OF INVENTION

[002] Background description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] Though it seems impossible to believe, there was a time when humanity had to resort to mortars and pestles to grind, mix and bind ingredients together. This

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