AI – POWERED IMAGE ENHANCEMENT

MINI PROJECT(ABSTRACT)

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ABSTRACT

The primary objective of the project is to develop a system that assists the image and video enhancement using Deep Learning. Deep Learning has revolutionized many fields, including image processing. One of the most promising applications of Deep Learning in image processing is image enhancement. Image enhancement is the process of improving the quality of an image, such as removing the noise, increasing contrast, or sharpening edges.

Traditional image enhancement methods are often based on hand-crafted features and heuristics. These methods can be effective in some cases, but they often fail to generalize to new data or to produce high quality results.Deep learning-based image enhancement methods have the potential to overcome these limitations. Deep learning models can be trained to learn complex features directly from data, without the need for hand-crafted features. This makes them more generalizable and capable of producing high-quality results.

In this mini-project, we will explore the use of deep learning for image enhancement. We will implement and evaluate several state of the art deep learning models for image enhancement tasks, such as denoising and Super-Resolution. We will also experiment with different training strategies and data augmentation techniques to improve the performance of our models.

PROBLEM STATEMENT: Implementing Deep Learning technology for image upsampling to enhance image editing efficiency and quality. This project aims to integrate Deep Learning super sampling into image or video editing software to accelerate image or video rendering, improve playback quality, and enhance the overall editing experience.

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