*Requirements:*

Python 3.x

PyTorch

Torchvision

PIL

OpenCV

Installation

To run this project, you need to install the required libraries. You can install them using pip:

**pip install torch torchvision pillow opencv-python**

*Usage*

To use this script, you need two images:

A content image (the image to which you want to apply the style).

A style image (the image whose style you want to capture).

Place these images in a directory accessible to the script.

*Steps to Run:*

Update the paths to your content and style images in the script:

**original\_img = load\_image("path\_to\_your\_content\_image.jpg")**

**style\_img = load\_image("path\_to\_your\_style\_image.jpg")**

The script will output the styled image as 'GeneratedImage.png' in your current directory.

*Hyperparameters:*

total\_steps: Number of iterations for updating the generated image.

learning\_rate: Learning rate for the optimizer.

alpha: Weight for content loss.

beta: Weight for style loss.

These parameters can be adjusted in the script to experiment with different results.