

Jetapult Assignment: Style Transfer using Deep Learning

Objective

The objective of this assignment is to implement a style transfer algorithm using deep learning techniques.

Background

Style transfer is a technique that allows the style of one image to be transferred to another image while preserving the content of the original image. This technique has been widely used in the field of computer vision and has many applications, such as artistic style transfer, image colorization, and image enhancement.

Requirements

- Implement a style transfer algorithm using deep learning techniques and/or modern generative models.
- Use at least one pre-trained deep learning/generative model for the implementation.
- Use at least two different styles for the style transfer.
- Provide a report that includes the following: Description of the implemented algorithm.
- [Target Image](#) for Style Transfer. The resulting image after style transfer should be high resolution and usable as in-game assets.
- **Bonus:** Achieving style transfer for all individual assets [Target Folder](#)

Resources

- [A Neural Algorithm of Artistic Style](#)
- [TensorFlow Hub](#)
- [PyTorch Hub](#)

Submission Deadline: 19 January 2024, 9PM IST

Submit the following:

- Source code of the implementation. (Preferably Python Notebook)
- A video report that includes the description of the implemented algorithm, explanation of the pre-trained deep learning model used, results of the style transfer for each style used, and discussion of the limitations and potential improvements of the implemented algorithm.

- Send your submissions [to this form](#).

Evaluation

The assignment will be evaluated based on the following criteria:

- Correctness of the implementation.
- Quality of the results.
- Clarity and completeness of the explanation.

Good luck!