Neural Style Transfer

NeuralArt - Stylize your Image

Avishi Gupta, Vaseem Naazleen, Shivangi Tomar

30 June 2020

Team - 38 NST 30 June 2020 1/10

Overview

Our project aims to stylize image by implenting A Neural Algorithm of Artistic Style paper by Leon A.Gatys, Alexander S.Ecker and Mathias Bethge.

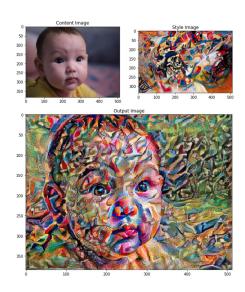
https://arxiv.org/pdf/1508.06576.pdf

Team - 38 NST 30 June 2020 2 / 10

What is Neural Style Transfer?

- Neural Style Transfer is an optimization technique.
- Input:
 - Content image.
 - Style reference image.
- Output:
 - Stylized image: looks like the content image, but painted in the style of the style reference image.

Example



Key Finding

The representation of content and style in the Convolutional Neral Network are seperable.

Team - 38 NST 30 June 2020 5 / 10

Technical Stack

- Keras (TensorFlow backend)
- NumPy
- SciPy
- Flask

Status

- Read the research paper.
- Completed the code implementation of model.
- Working on website.



Team - 38 NST 30 June 2020 7 / 10

Learnings

- Learned to work with Version Control System conveniently.
- Learned to make presentation using Beamer.
- Studied about CNN.
- Learned HTML and CSS.

Difficulties

 The program is taking lot of time to output stylized image. (Working on it)

Thank You:)