Project Proposal

Arbitrary-Style-Transfer

1. Project Details

1.1 Title

Custom Title - Arbitrary-Style-Transfer

1.1.1 Project Github Link: Arbitrary-Style-Transfer

1.1.2 Paper Link: Arbitrary Style Transfer in Real-time with AdaIn

1.2 Members

- Aditya Gupta (2018102010)
- Mohsin Mamoon Hafiz (2018101029)
- Kartik Agrawal (2018102017)
- Abinash Maharana (2018111033)

1.3 TA

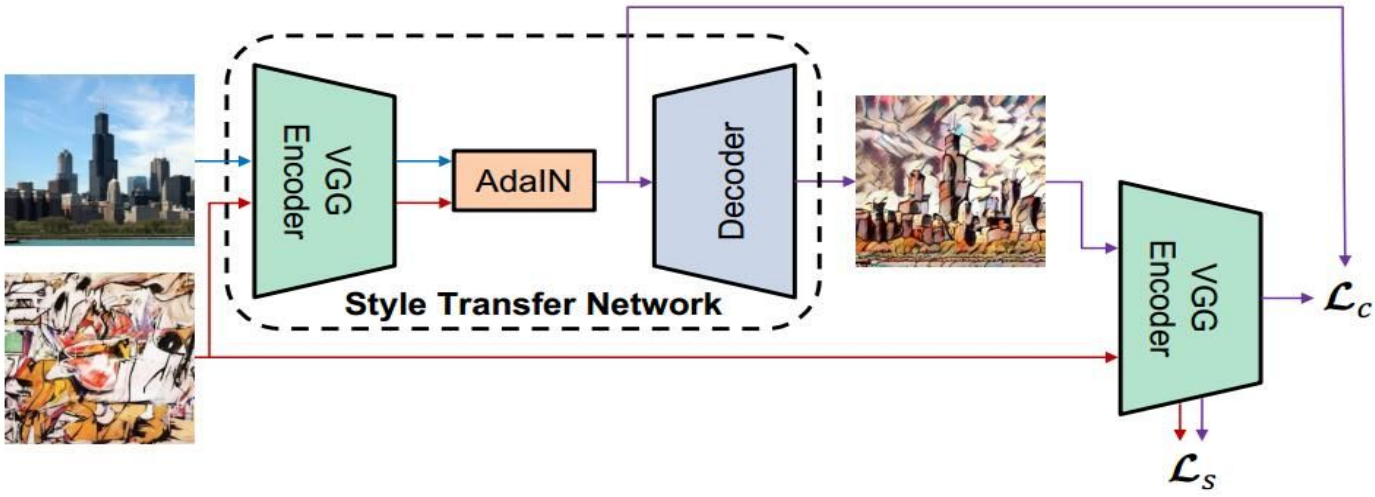
- Meher Shashwat Nigam

2. Project Topic

2.1 Problem Definition:

We give an image as input upon which we wish to apply some arbitrary style. We also give an image as input containing the desired style. What we get is a style transformed image.

In the previous work mentioned in the paper, The existing style transfer methods are usually tied to a fixed set of styles and cannot adapt to new ones. This approach however, enables arbitrary style transfer in real time.



2.2 Components of the project:

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1. Encoder
2. Adaptive Instance Normalization train layer
3. Decoder and other utilities.

}

Tentative approach: We tentatively plan on allotting 15-17 days to each main goal of our project. We will begin by building a skeleton for the project after which we will work component by component.

*We intend to finish setting up the VGG encoder and implement AdaIN by mid-evaluations.

For the final deliverable, we hope to include a complete implementation along with observations and results for any parameters that can be tweaked.

3. Results of the Project:

To obtain images rendered in the style of another image, achieving style transfer.

Optionally, if time permits we will try to implement it for videos as well.