# Neural Style Transfer NeuralArt - Stylize your Image

Avishi Gupta, Vaseem Naazleen, Shivangi Tomar

24 August 2020

Team - 38 NST 24 August 2020 1 / 10

#### Overview

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

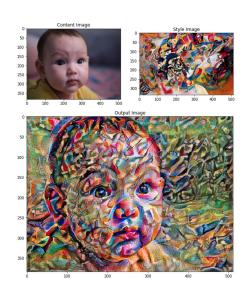
https://arxiv.org/pdf/1508.06576.pdf

Team - 38 NST 24 August 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 representations of content and style in the Convolutional Neural Network are seperable.

#### Technical Stack

- Keras
- Tensorflow
- NumPy
- SciPy
- Matplotlib
- Flask

24 August 2020

6/10

#### Status

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

### Learnings

- Version Control System.
- Presentation using Beamer.
- Convolutional Neural Networks.
- HTML, CSS and JavaScript.

#### Difficulties

- The program is taking lot of time to output stylized image.
- Allocating space for user's image.

Team - 38 NST 24 August 2020 9 / 10

#### **Future Extensions**

Team - 38 NST 24 August 2020 10 / 10

# Thank You!