

Interactive Style Transfer

CMPM 202 // W2019

Project Description: A web application consisting of a canvas and a few 'brushes' for applying a specific art style to an uploaded image. The user will be able to apply different styles from pre-loaded models to different parts of their own image, i.e. apply the starry night style to the sky but a picasso style to the buildings.

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Readings:

- Section 2 (Style Transfer in Fourier Space):
<https://distill.pub/2018/differentiable-parameterizations/>
- <https://thegradient.pub/playing-a-game-of-ganstruction/>

Discussion Questions:

1. What is the difference between a loss function represented by a 'critic' in a VGG architecture and by hand-tuned 'content and style' functions in frequency space?
2. How do you personally organize the features of a painting or art piece in a hierarchy or a network? (Does the layout take precedence over color scheme or vice versa, etc)
3. Comment on the Artist-Critic game from the second article - what does 'learning' mean in the context of a 'blind' artist (without any knowledge or opinion on their creations) and a fallible critic?