

*Title:*

Important Fine-Art Cat Videos

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*Abstract:*

For our final project, we explored the field of neural style transfer. Given a content image or video and a style image, a neural style transfer algorithm uses convolutional neural networks (CNNs) to generate an image that combines the semantic content of the content image and the style of the style image. We based our work on Gatys *et al.* [1], who introduced the first CNN-based neural style transfer algorithm for static images, and Ruder *et al.* [3], who improved upon the algorithm presented in Gatys *et al.* [1] to apply neural style transfer to videos. We present working implementations of neural style transfer algorithms for static images and videos. We chose to exclusively stylize images and videos of cats, but the algorithms are broadly applicable and do not require cat or cat-like inputs.

