Classifying Styles of Art

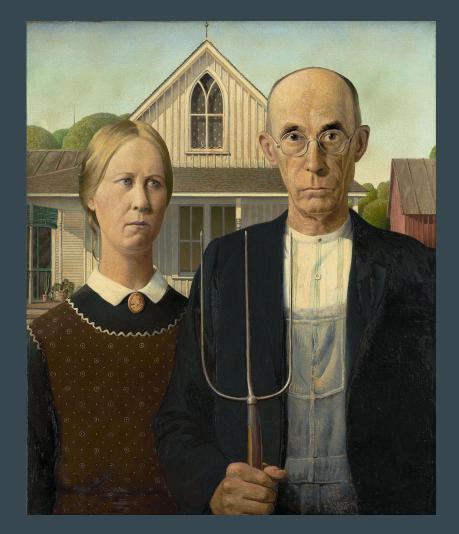
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Lucas De Oliveira & Chandrish Ambati

Can a deep learning model learn how to classify the style

(not the content) of a painting?











Previous work...

Recognizing Art Style Automatically in painting with deep learning

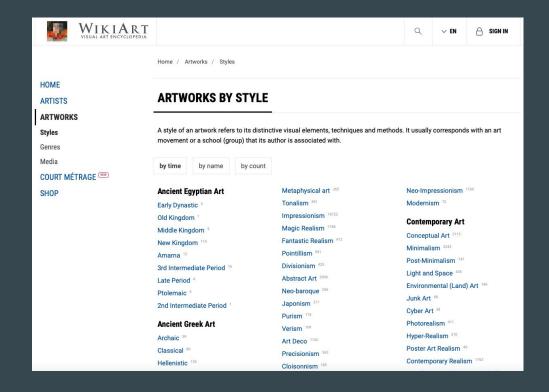
Adrian Lecoutre | Benjamin Negrevergne | Florian Yger

Experiment with different architectures and techniques to classify 25 styles a dataset from WikiArt.

- Versions of AlexNet & ResNet
- Pre-trained v. re-trained
- Bagging, augmentation, distortion

Dataset: WikiArt

- 80,000 images
- 25 classes (same as paper)
- Access:
 - Website
 - zip downloads of dataset
 - There exist APIs
- Potential test sets:
 - Train-test split
 - Ergsap (used in paper)
 - National Gallery of Art / other museums



Expressionism

Style

FEATURED



Old Tramp Laszlo Mednyanszky • 1880



Jurisprudence Edvard Munch • 1887





Bildnis Des Malers Ploner Albin Egger-Lienz • 1883



Calvary
James Ensor • 1886





Frühes Selbstbildnis Albin Egger-Lienz • 1884



Christ's Entry Into Brussels in 1889 James Ensor • 1888



Self portrait
Edvard Munch • 1886



The Sick Child Edvard Munch • 1885-1886

Our plan...

- Image classification on 25 style classes
- Reproduce/improve on previous paper
- Models:
 - AlexNet, ResNet, Visual Transformers
 - Comparing training time, inference time, and performance
- Experiment with different techniques
 - Contrastive Learning
 - Other architectures which have high accuracy on ImageNet
- Produce a blog post/short paper summarizing our results

Styles/movements considered

Abstract Art, Abstract Expressionism, Art Informel, Art Nouveau (Modern), Baroque, Color Field Painting, Cubism, Early Renaissance, Expressionism, High Renaissance, Impressionism, Magic Realism, Mannerism (Late Renaissance), Minimalism, Naive Art (Primitivism), Neoclassicism, Northern Renaissance, Pop Art, Post-Impressionism, Realism, Rococo, Romanticism, Surrealism, Symbolism and Ukiyo-e.

Thanks!