

IMAGE TO IMAGE TRANSLATION USING AC-CYCLE GAN

By Team Art Alchemists

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ABOUT THE PROJECT

This project aims to use an Auxiliary Classifier CycleGAN to turn ordinary photos into works of art. The focus is on two art styles: Ukiyo-e and Monet. The model will also include a mixing factor to control the amount of each style.

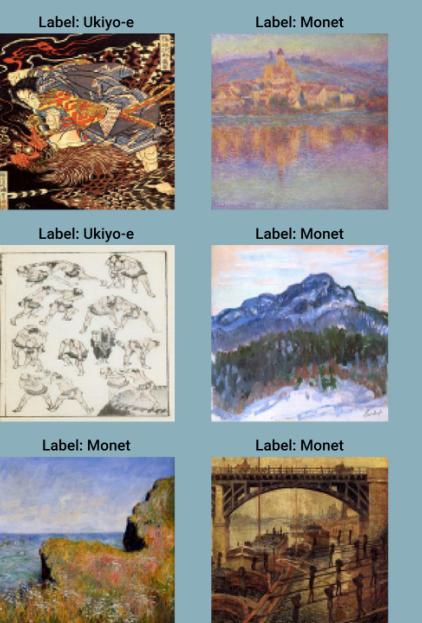
DATA RESOURCES

The data utilized for this project was obtained from the datasets that were originally used by the authors of the CycleGAN research paper. These datasets consisted of artworks that were sourced from WikiArt and ordinary images sourced from Flickr.

ORDINARY PICTURES

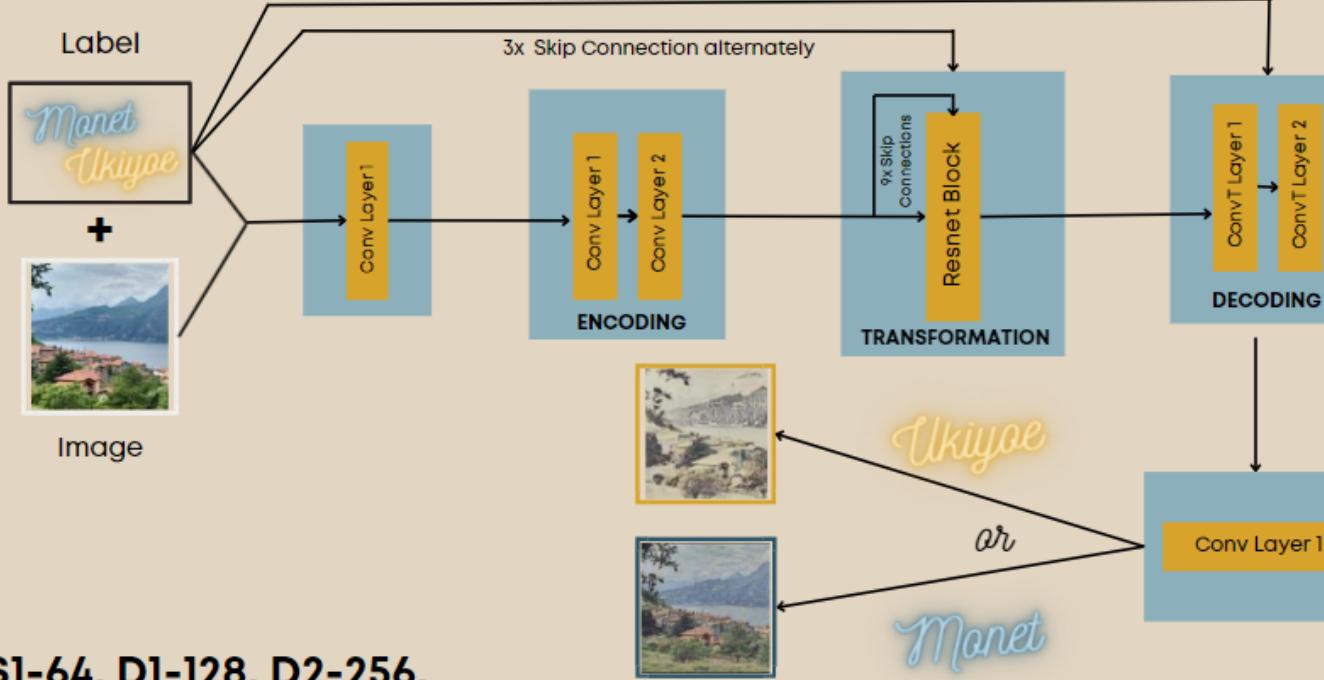


ARTWORKS



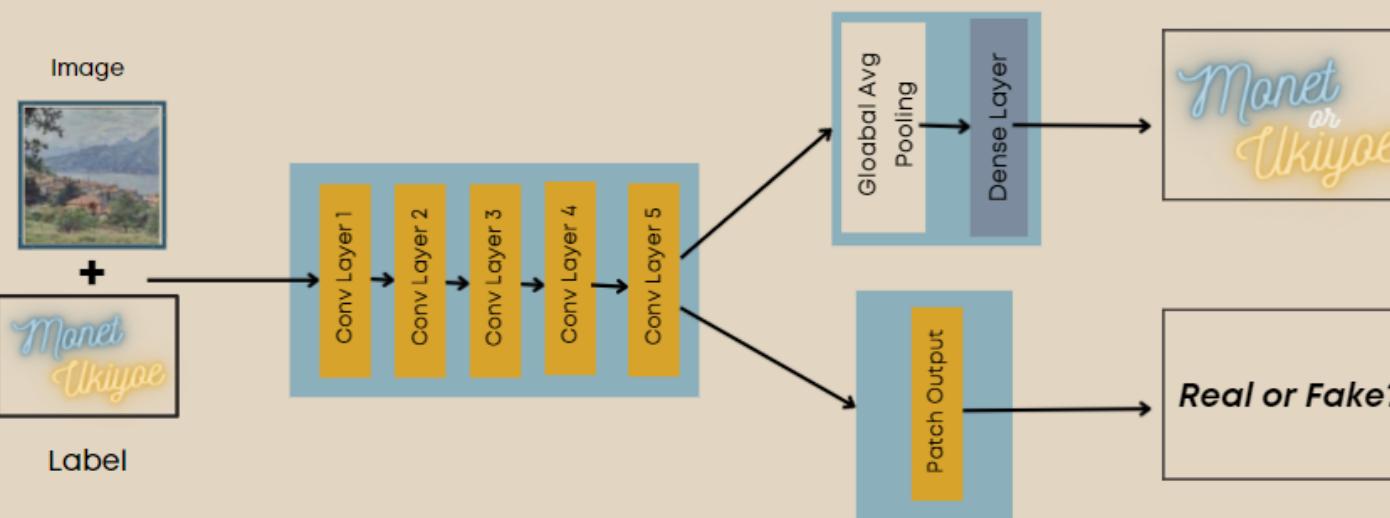
MODEL ARCHITECTURE

GENERATOR



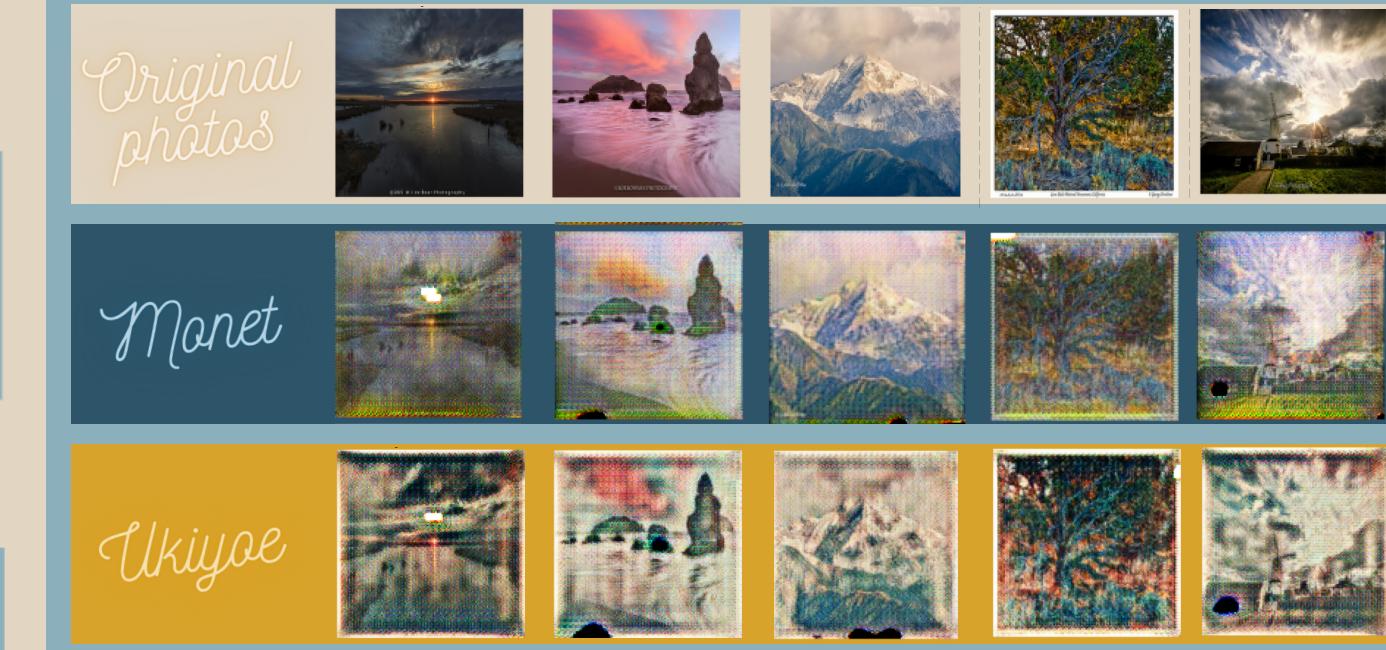
C7S1-64, D1-128, D2-256,
R-256, U1-128, U2-64, CT7S1-3

DISCRIMINATOR



C4S2-64, C4S2-128, C4S2-256, C4S2-512,
C4S1-512, C4S1-1, Global Avg Pooling 2D, D2

RESULTS



FUTURE WORK

- Tune hyperparameters to improve image quality.
- Use Progressive GAN for better image resolution.
- Explore inverse mapping with CycleGAN for art-style transfer.
- Investigate adding a fully connected network to control the amount of art-style.
- Use segmentation maps to transfer specific features from an art-style to an image.

REFERENCES

- [Unpaired Image-to-Image Translation using Cycle-Consistent Adversarial Networks](#), Jun-Yan Zhu et al.
- [Image-to-Image Translation with Conditional Adversarial Networks](#), Phillip Isola et al.
- [Perceptual Losses for Real-Time Style Transfer and Super-Resolution](#), Justin Johnson et al.