

# Animated Face Creation using GAN

## Group 24

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### Goal

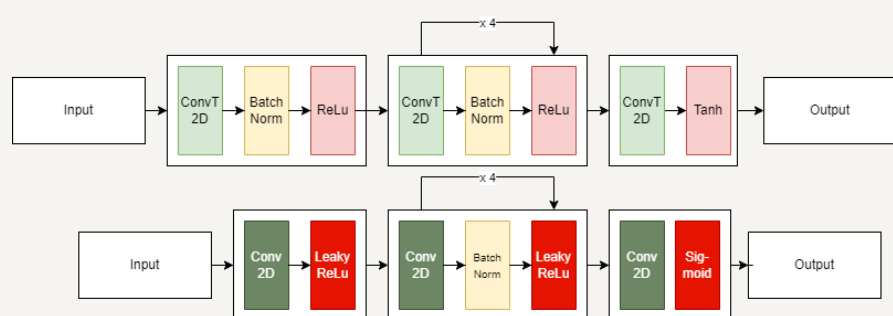
Create a GAN capable of generating animated faces based on the data supplied during training.

### Experiments & Architectures

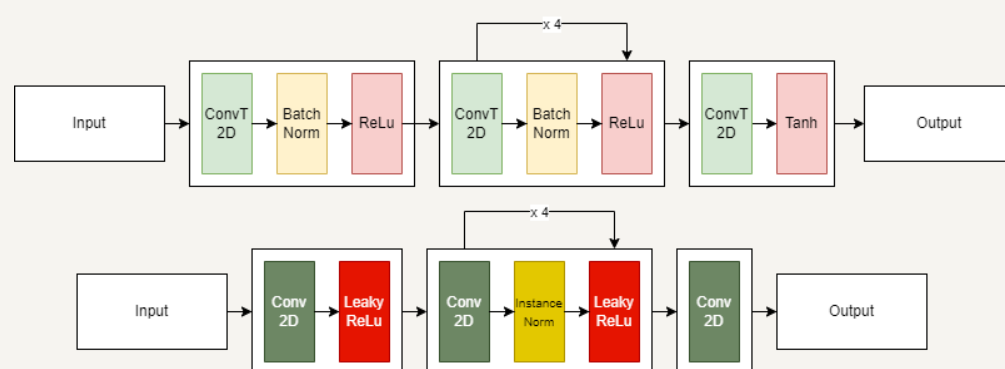
- DCGAN
- DCGAN with Data Augmentation
- WGAN with Gradient Penalty (GP)
- WGAN-GP with Data Augmentation



### DCGAN Architecture

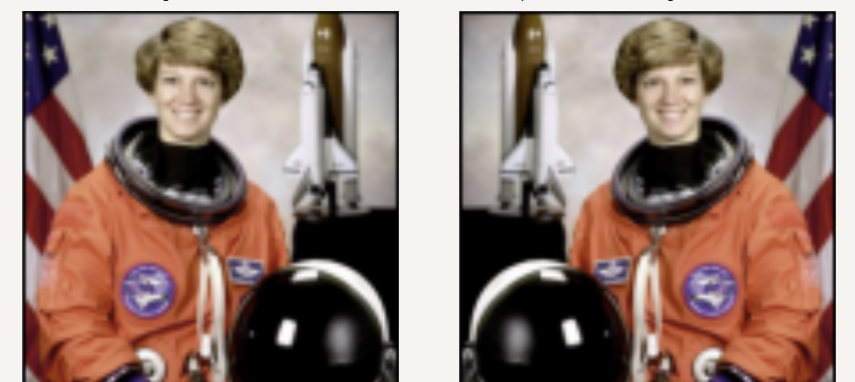


### WGAN Architecture



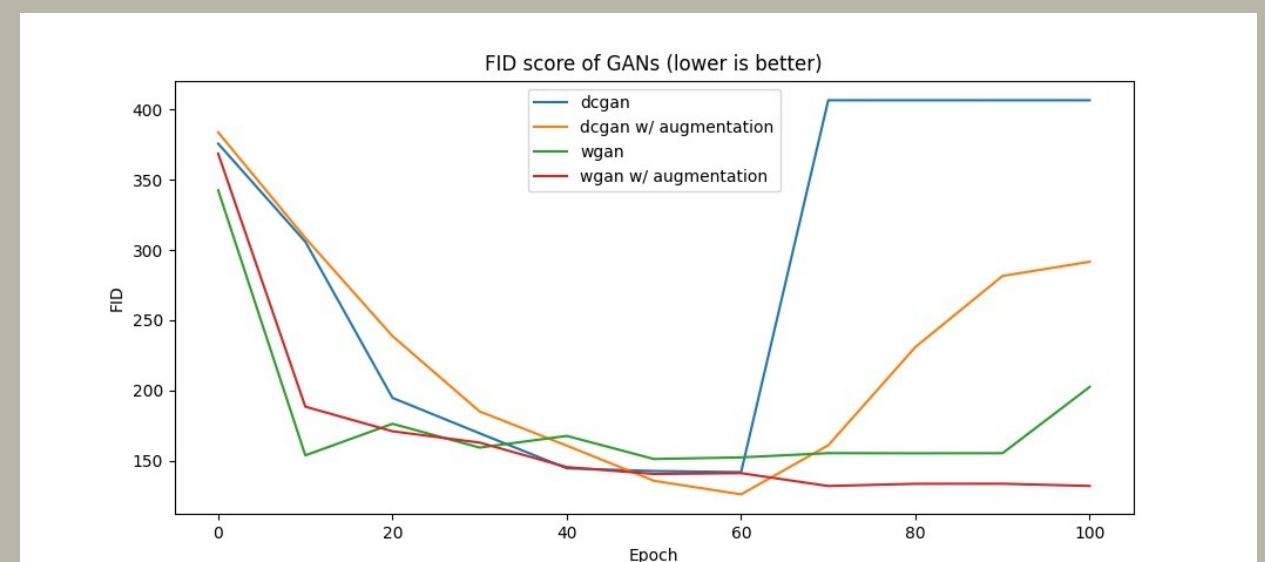
### Data Augmentation

Probability of 0.5, to do a horizontal flip with every iteration



### Evaluation & Results

The evaluation procedure when comparing all models was conducted by comparing the Fréchet inception distance (FID), a standard GAN evaluation metric.



### DCGAN Results

Using the DCGAN Architecture, in the images below we can see some differences between minor augmentations in the data



DCGAN

DCGAN with Data Augmentation

### WGAN Results

Using the WGAN Architecture, in the images below we can see some differences between minor augmentations in the data



WGAN-GP

WGAN-GP with Data Augmentation

