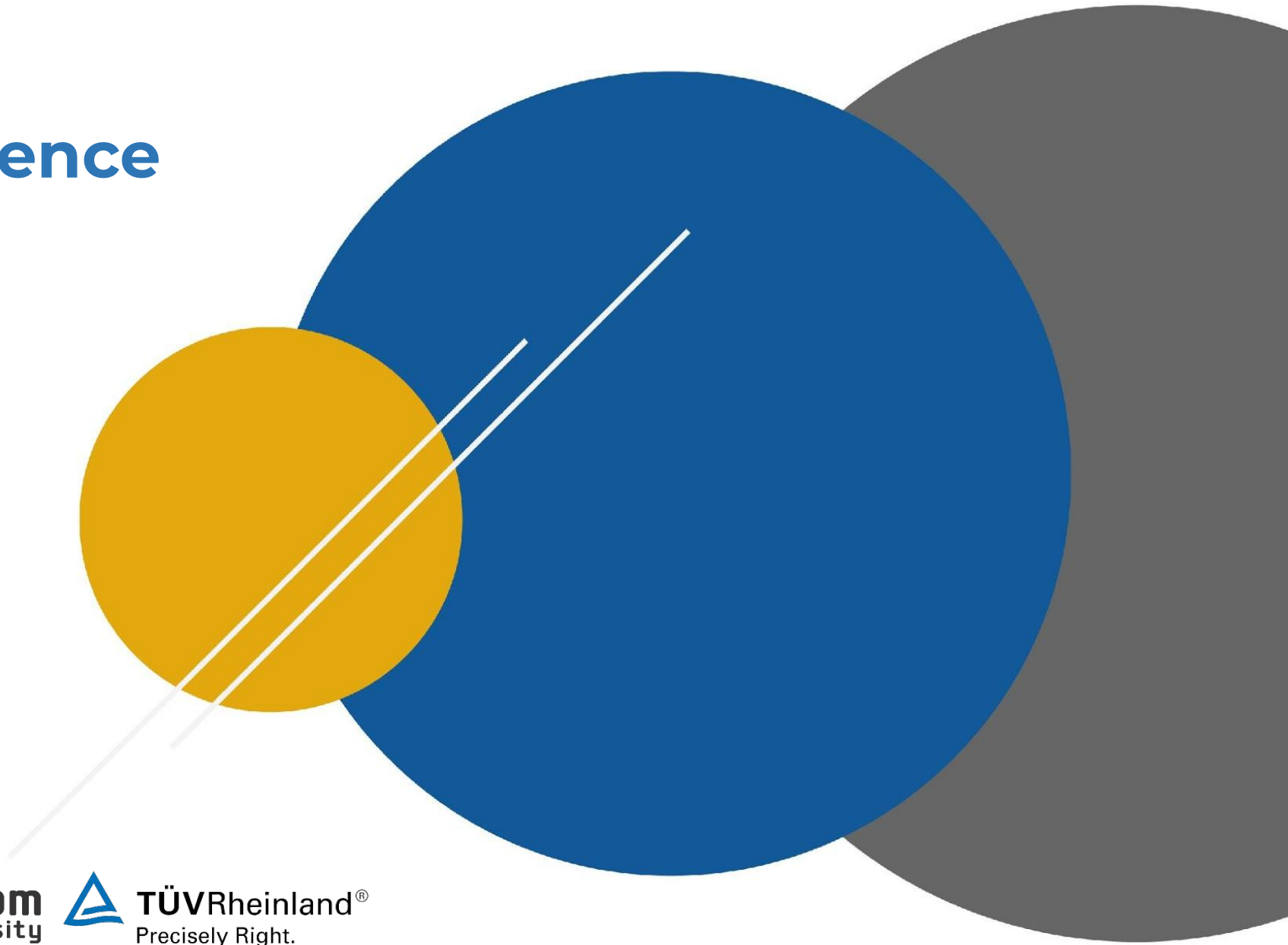


Artificial Intelligence

Deep Learning



GAN Implementation

Generate Anime Characters



Figure 7: Generated samples

Paper :

Towards the Automatic Anime Characters
Creation with Generative Adversarial Networks

<https://arxiv.org/pdf/1708.05509.pdf>



GAN Implementation

Generate Artist Face



Figure 5: 1024 × 1024 images generated using the CELEBA-HQ dataset. See Appendix F for a larger set of results, and the accompanying video for latent space interpolations.

Paper :

Progressive Growing Of GANS For Improved Quality, Stability, And Variation - NVIDIA

<https://arxiv.org/pdf/1710.10196.pdf>



Lab 01

Conv2D

`model.add(Conv2D(32, (3, 3), padding='same', input_shape=img_train.shape[1:]))`

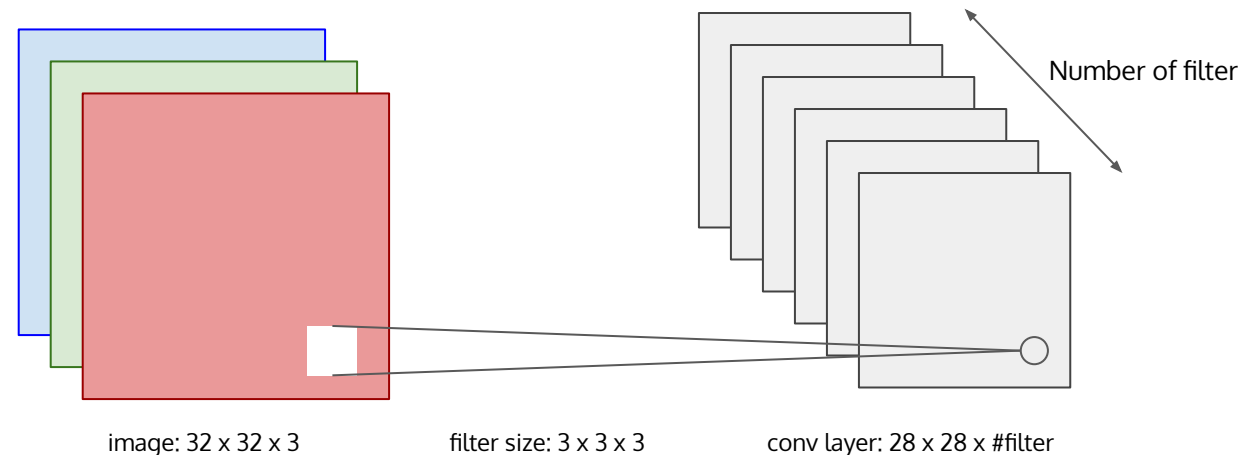
`input_shape=img_train.shape[1:]` → input size 32 x 32 x 3

number of filter → 32

kernel size → 3 x 3

stride 1 x 1

activation → relu



Lab 01

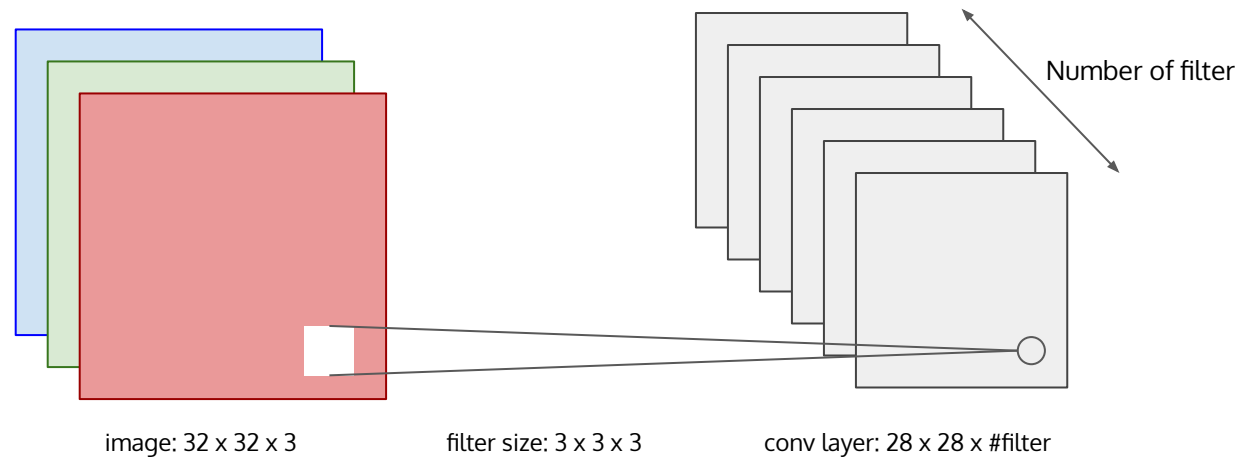
Pooling Layer

`model.add(MaxPooling2D(pool_size=(2, 2)))`

input $\rightarrow 28 \times 28$

pooling size $\rightarrow 2 \times 2$

stride $\rightarrow 2 \times 2$



Lab 01

Architecture

