RZOLUT

Generative Adversarial Network

A machine learning model in which two neural networks compete with each other to become more accurate in their predictions. The main focus for Generative Adversarial Networks (GANs) is to generate data from scratch, mostly images but other domains including, music, have been done. GAN can handle the missing data and can do the predictions on missing data which also signify a support to the concept of semi-supervised learning.

Advantages

- Generates data that looks similar to original data
- Easily interpret different versions of data
- Helpful in machine learning work
- GANs are unsupervised
- Generates sharpest images
- Improves astronomical images
- Improves the resolution of a video

Applications

- Detects Glaucomatous Images
- Image-to-Image Translation
- Text-to-Image Translation
- Photograph Editing
- Image Inpainting
- Video Games
- Transfer Learning
- Domain Adaption
- Denoising
- Image Super-Resolution

Trends

- Edmond de Belamy was a painting created by GAN and it was sold for a staggering amount of $432, 500 at Christie's auction which is still seen as a big step in the progress of GANs
- Forbes in an article stated GANs to be the next generation of artificial intelligence
- Researchers are starting to use GANs to facilitate drug discovery and novel drug creation