Generative adversarial networks (GAN)

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SECTION-02

GAN

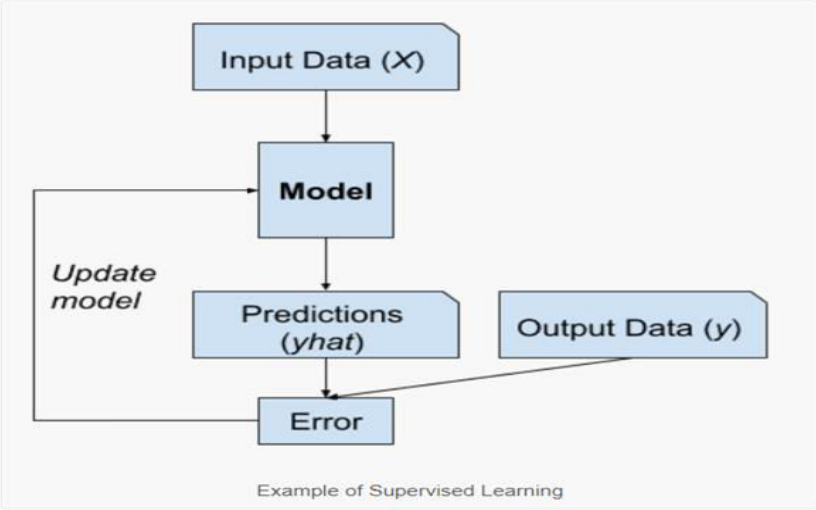
-What is GAN?

-Unsupervised learning task.

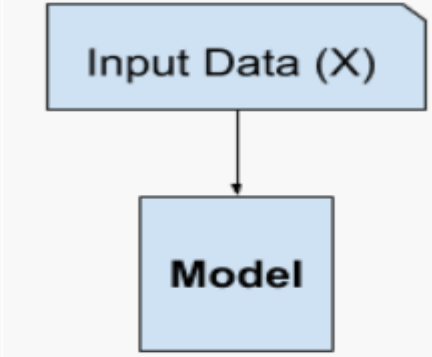
-Supervised learning problem.

Generative models

- Supervised vs. Unsupervised Learning



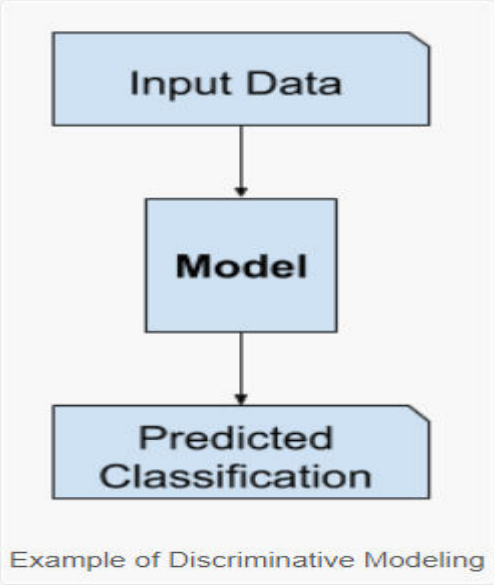
Example of Supervised Learning



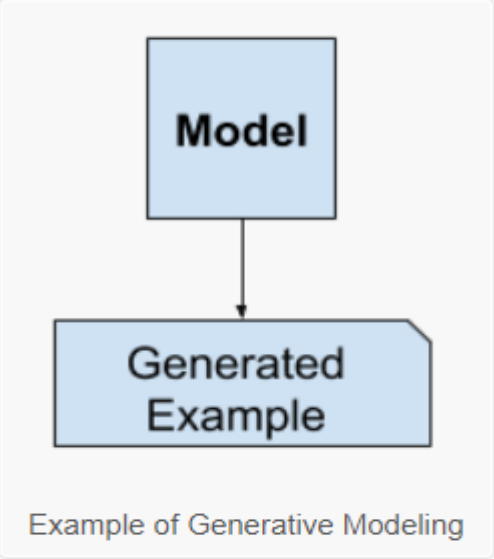
Example of Unsupervised Learning

Generative Models

-Discriminative vs. Generative Modeling



Example of Discriminative Modeling



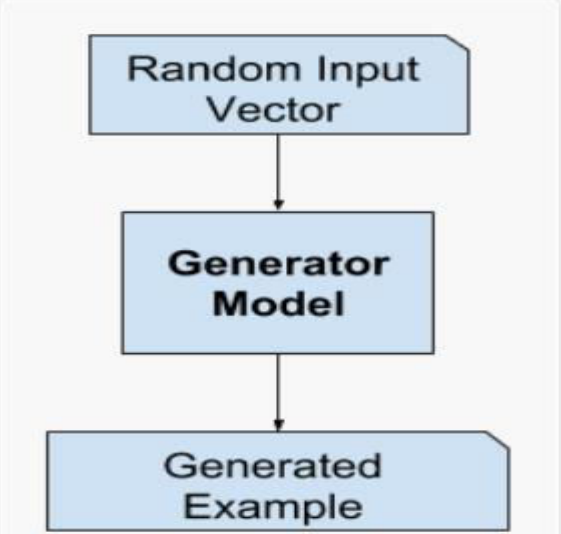
Example of Generative Modeling

Generative Adversarial Networks

Two sub-models:

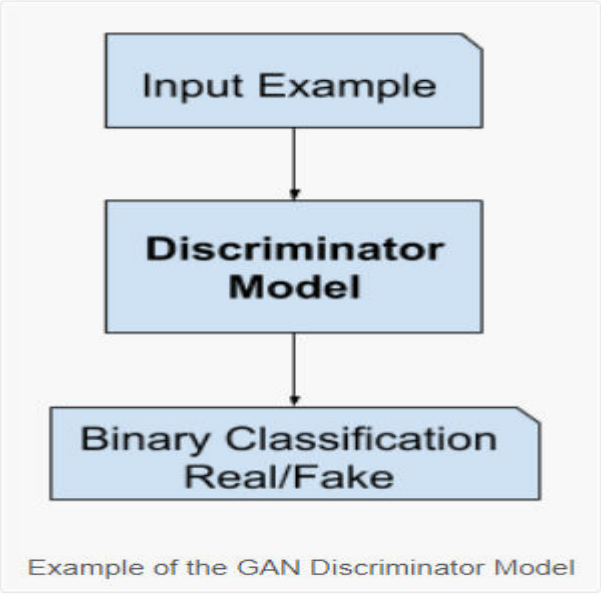
- Generator model.
- Discriminator model.

The generator model



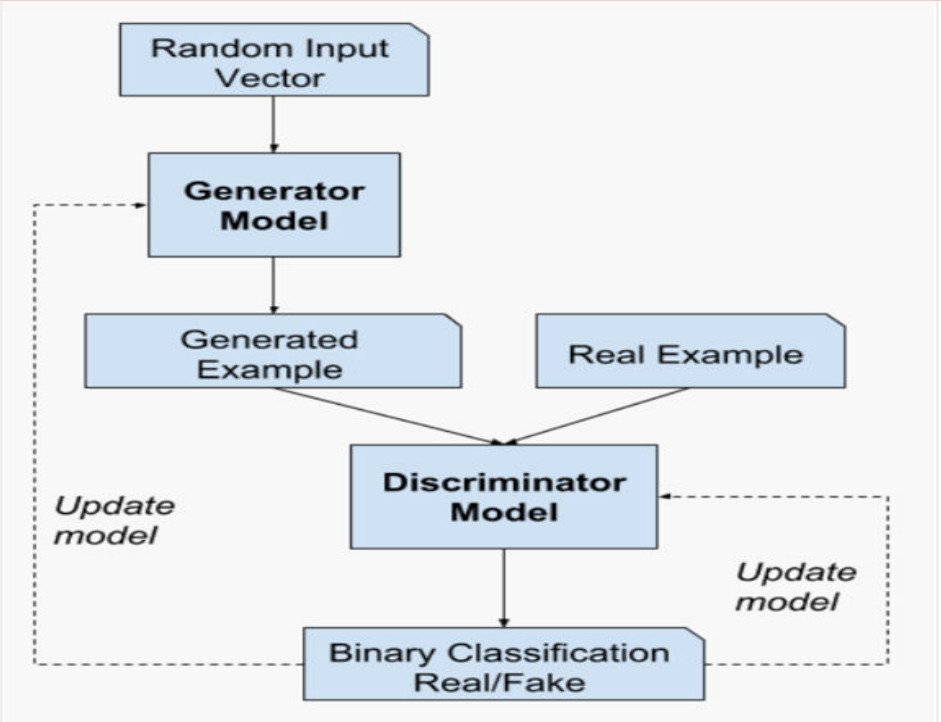
Example of the GAN Generator Model

The Discriminator Model



Example of the GAN Discriminator Model

Example of the Generative Adversarial Network Model architecture



GANs and Convolutional Neural Networks

-image data.

-remarkable progress.

-object detection & face recognition.

-modeling image data.

Why Generative Adversarial Networks?

-image super resolution.

-creating art.

-image to image translation.

THANKS!