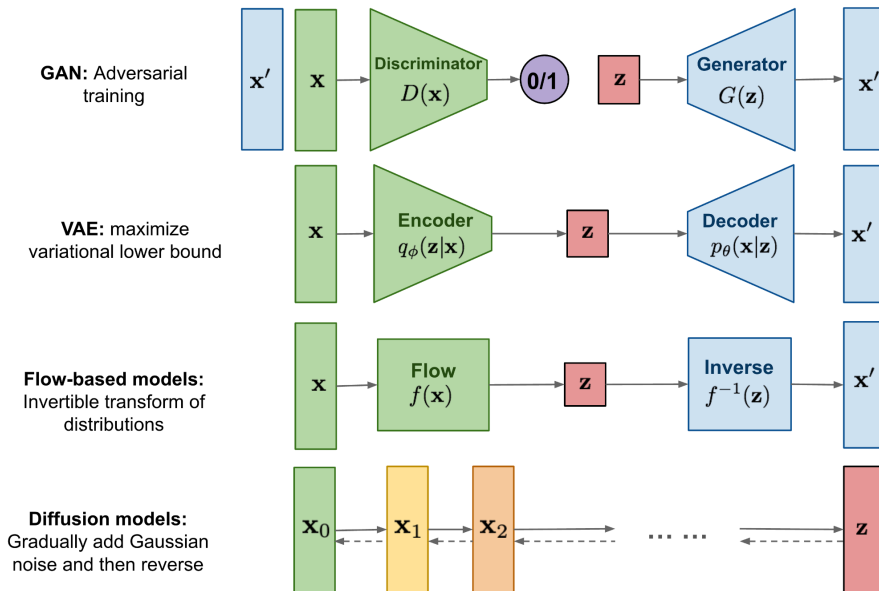


Understanding Diffusion Models

A document containing different sources to help understand diffusion models
(by Alejandro Pequeño Lizcano)



[1. Articles and Papers](#)

[1.1 Articles](#) -----

[1.2 Maths](#) -----

[1.3 Top articles](#) -----

[1.4 Papers](#) -----

[2. Videos](#)

[3. Code](#)

1. Articles and Papers

1.1 Articles -----

1. [An Introduction to Diffusion Models for Machine Learning](#) (mini intro, beneficios y aplicaciones)
2. <https://freedium.cfd/https://towardsdatascience.com/diffusion-models-made-easy-8414298ce4da> (intro con mates corta)
3. [Introduction to Diffusion Models for Machine Learning](#) (intro con mates del modelo)
4. <https://learnopencv.com/denoising-diffusion-probabilistic-models/> (pipeline de las mates)
5. <https://github.com/diffusion/Awesome-Diffusion-Models> (collection of resources and papers on Diffusion Models)
6. <https://github.com/dome272/Diffusion-Models-pytorch> (implementation YouTube)

1.2 Maths -----

1. [Diffusion models. Diffusion probabilistic models are...](#) (mates por encima)
2. <https://arxiv.org/pdf/2209.00796.pdf> (A Comprehensive Survey of Methods and Applications)
3. <https://lilianweng.github.io/posts/2021-07-11-diffusion-models/> (mates explicadas en detalle)
4. <https://theaisummer.com/diffusion-models/> (mates explicadas en detalle)
5. <https://perceptron.blog/defusing-diffusion/> (mates en detalle)
6. <https://www.youtube.com/watch?v=H45lF4sUgiE>

1.3 Top articles -----

1. <https://dzdata.medium.com/intro-to-diffusion-model-part-1-29fe7724c043>
2. <https://medium.com/@steinsfu/diffusion-model-clearly-explained-cd331bd41166>

1.4 Papers -----

1. [Deep Unsupervised Learning using Nonequilibrium Thermodynamics.pdf](#)
2. [Diffusion Models Beat GANs on Image Synthesis.pdf](#)
3. [Denoising Diffusion Probabilistic Models.pdf](#)
4. [Improved Denoising Diffusion Probabilistic Models.pdf](#)

2. Videos

- [▶ Diffusion Models | Paper Explanation | Math Explained](#)
- [▶ What are Diffusion Models?](#)
- [▶ DDPM - Diffusion Models Beat GANs on Image Synthesis \(Machine Learning R...](#)
- [▶ CS 198-126: Lecture 12 - Diffusion Models](#)
- [▶ The U-Net \(actually\) explained in 10 minutes](#)
- [▶ Diffusion Models | PyTorch Implementation](#)