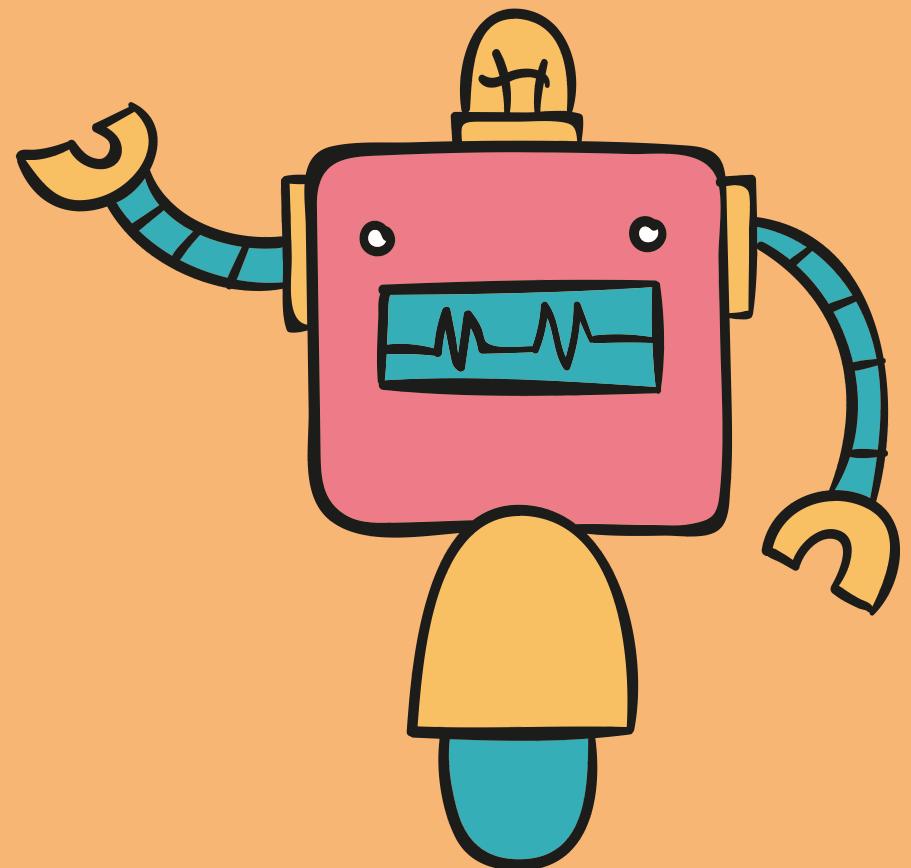
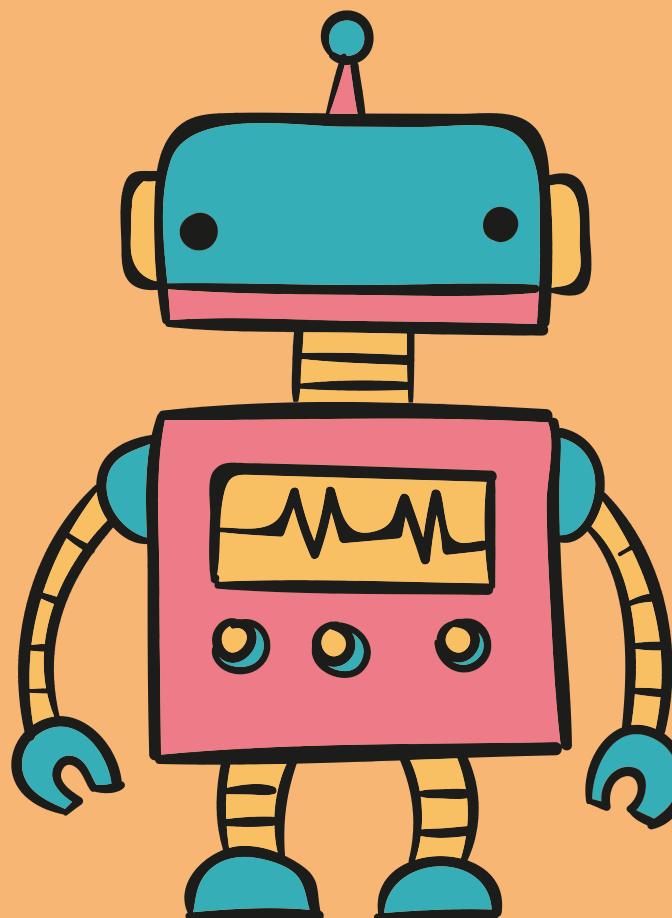
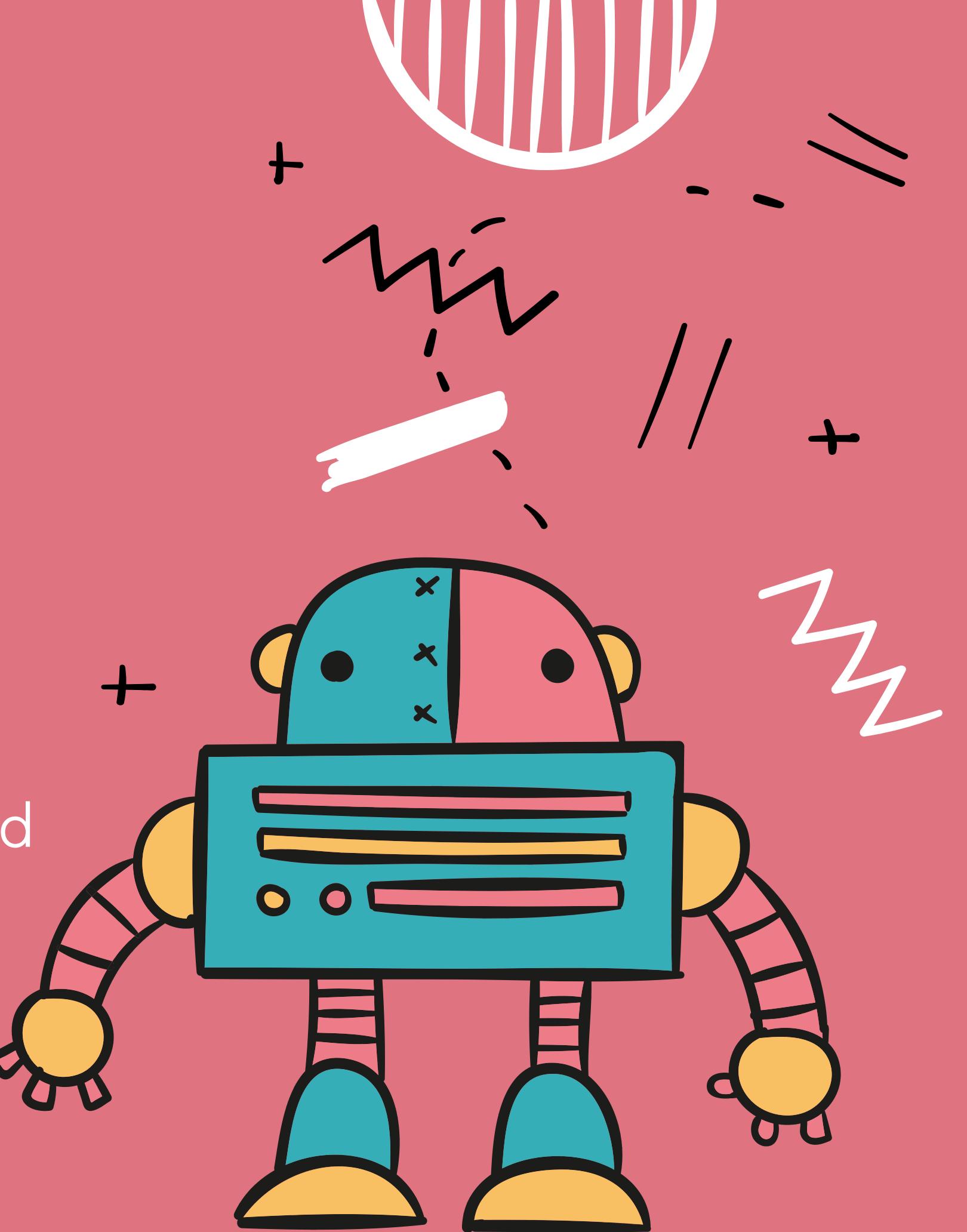


Generative Adversarial Networks



Introduction

AI is a phenomenon that blurs the lines between reality and illusion , as it takes center stage in the field of photography and art .





2020



2024

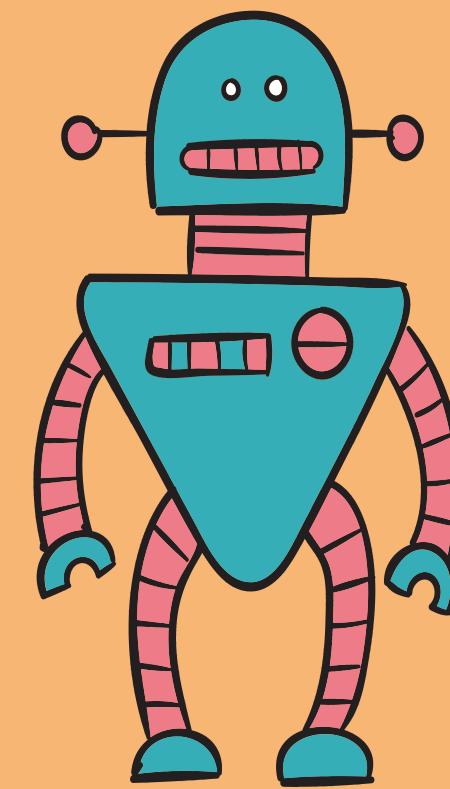
2017



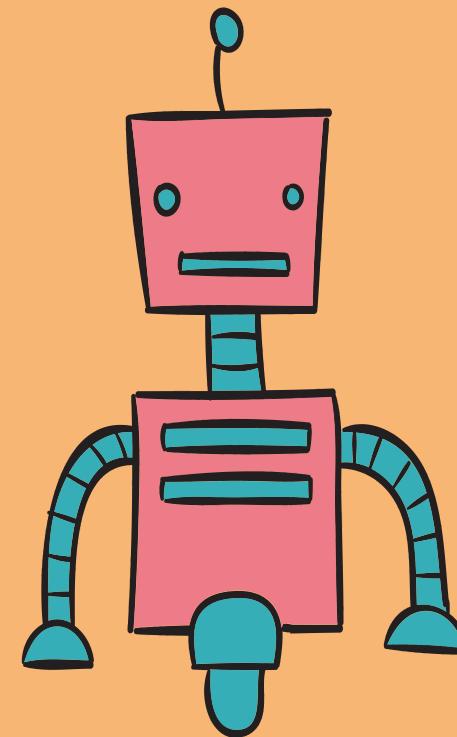
2023

Plan

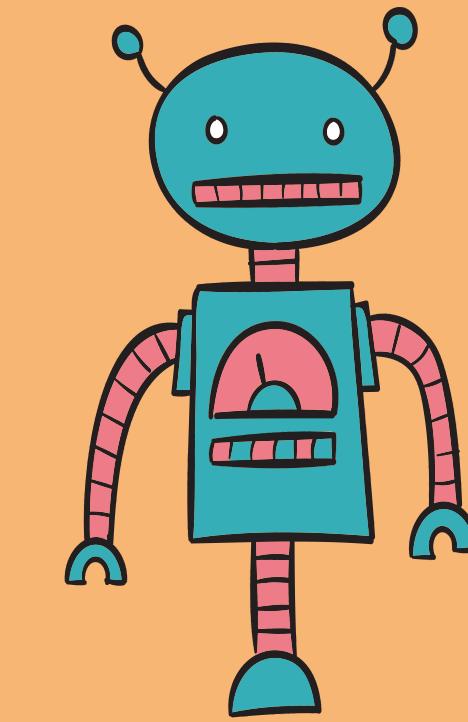
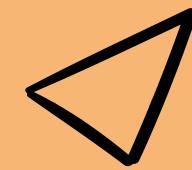
+



GAN

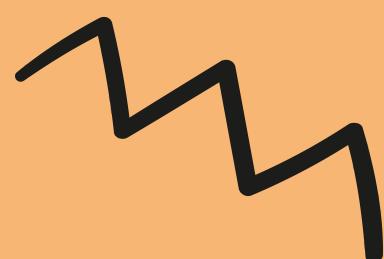


Generative model

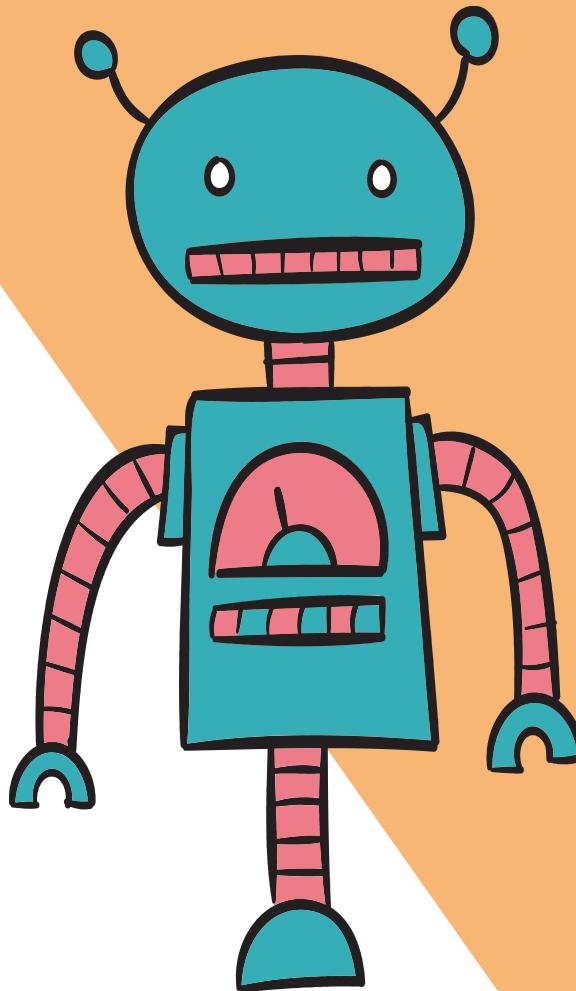


Descriminative model

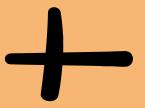
C

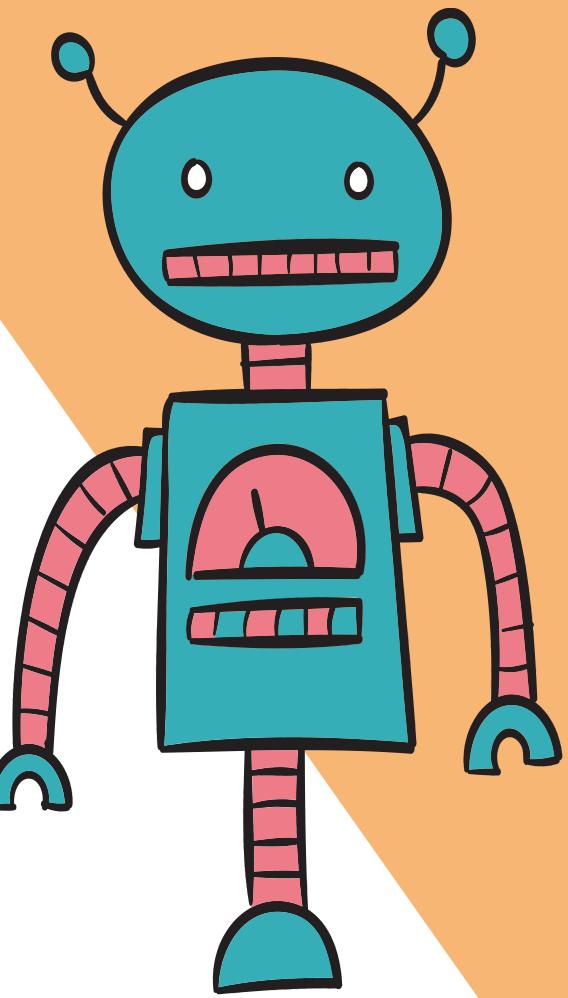


Descriptive model



An AI model based on machine learning algorithms that exploits the concept of pattern recognition and making predictions trained to categorize and classify data.





Antonio



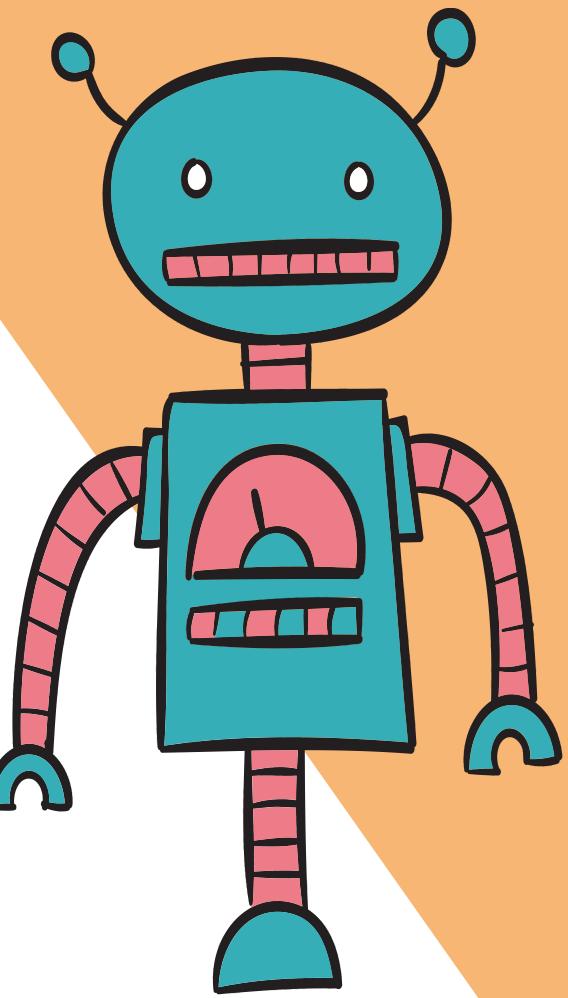
Apple



Strawberry

this type of data is called labeled data.

+

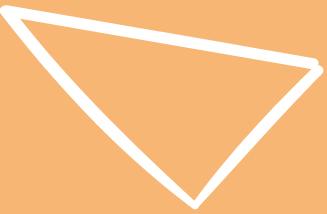


Antonio

Apple:
COLOR = GREEN

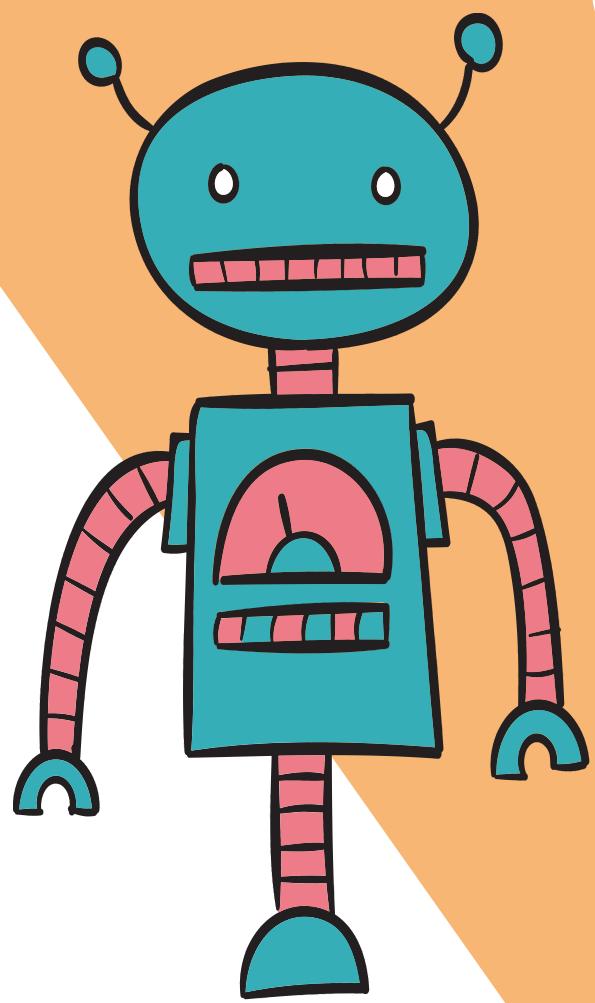
Strawberry:
COLOR = RED

'COLOR' is a variable that has only 2 variants : red and green .



+

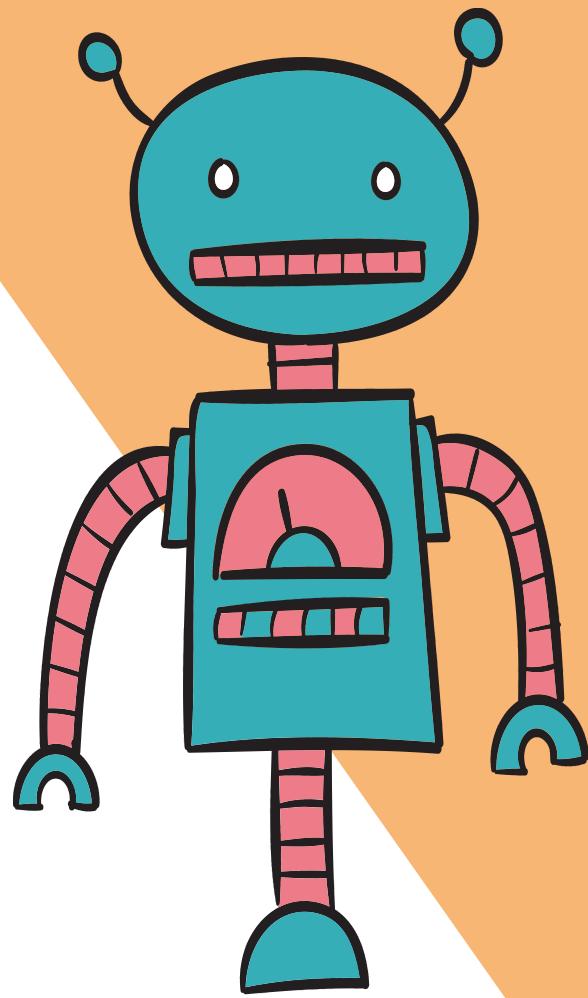
strawberry



Antonio



+



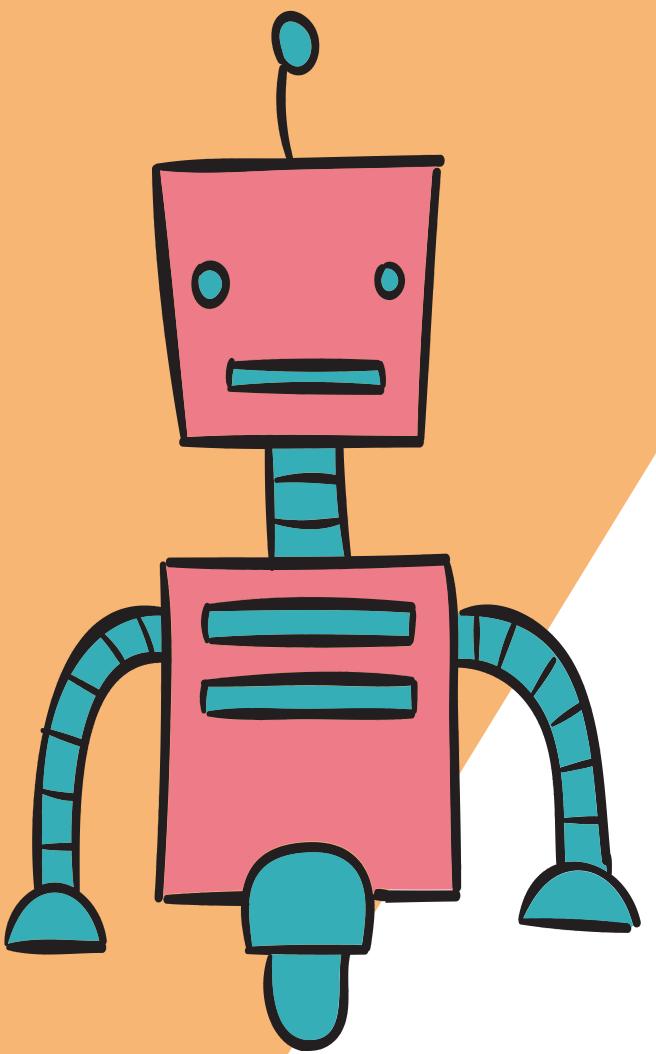
Antonio

Antonio needs massive amount of data to learn from , when being presented to a lot of data it will start pattern recognition and it will define million of variables or critireas for each object .

+

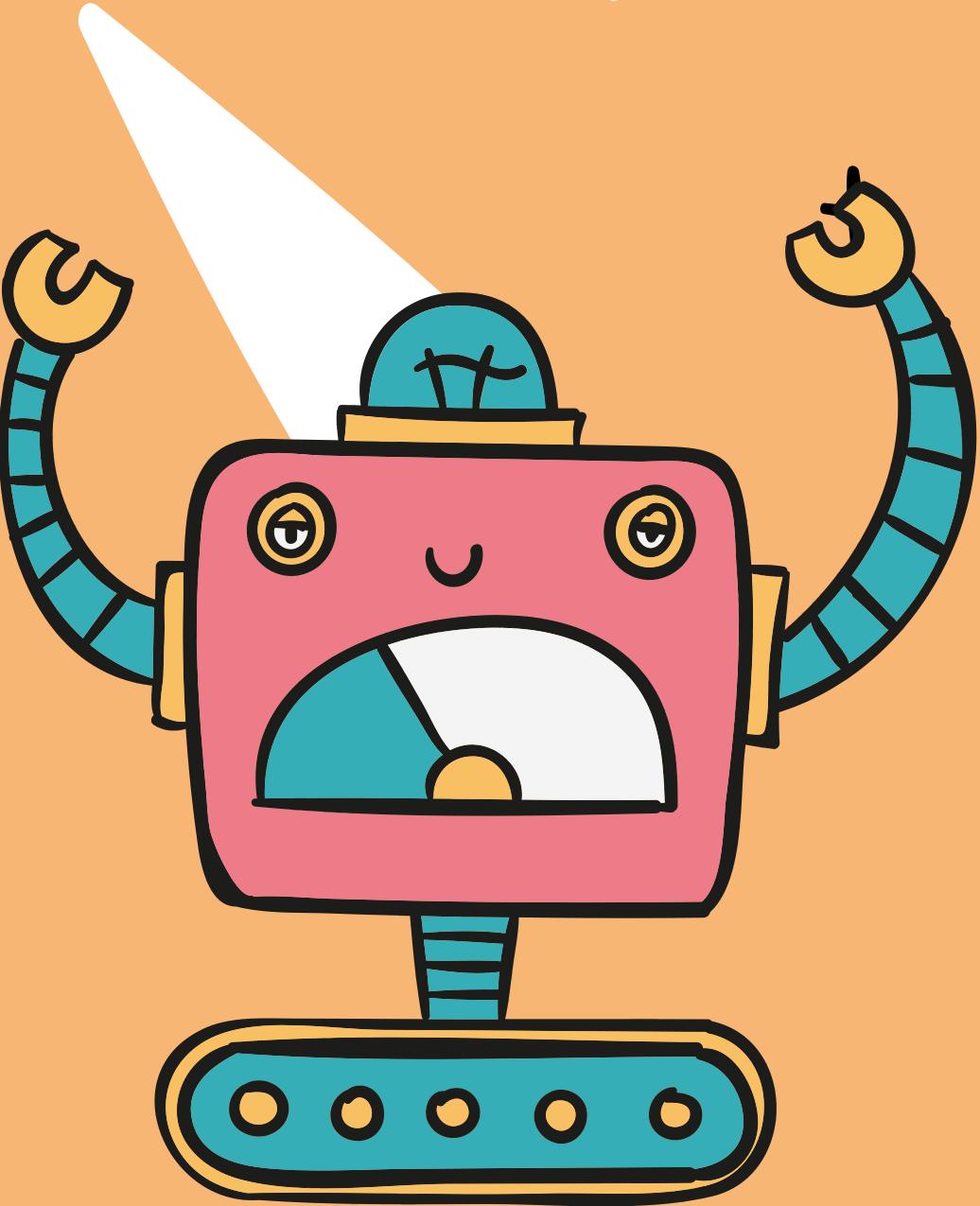
Genarative model

if descriminative models are detectives then generative ones are artists , they use the same machine learning algorithms as the descriminatives but they use their new knowledge to generate new data that ressembeles to the data it was trained on



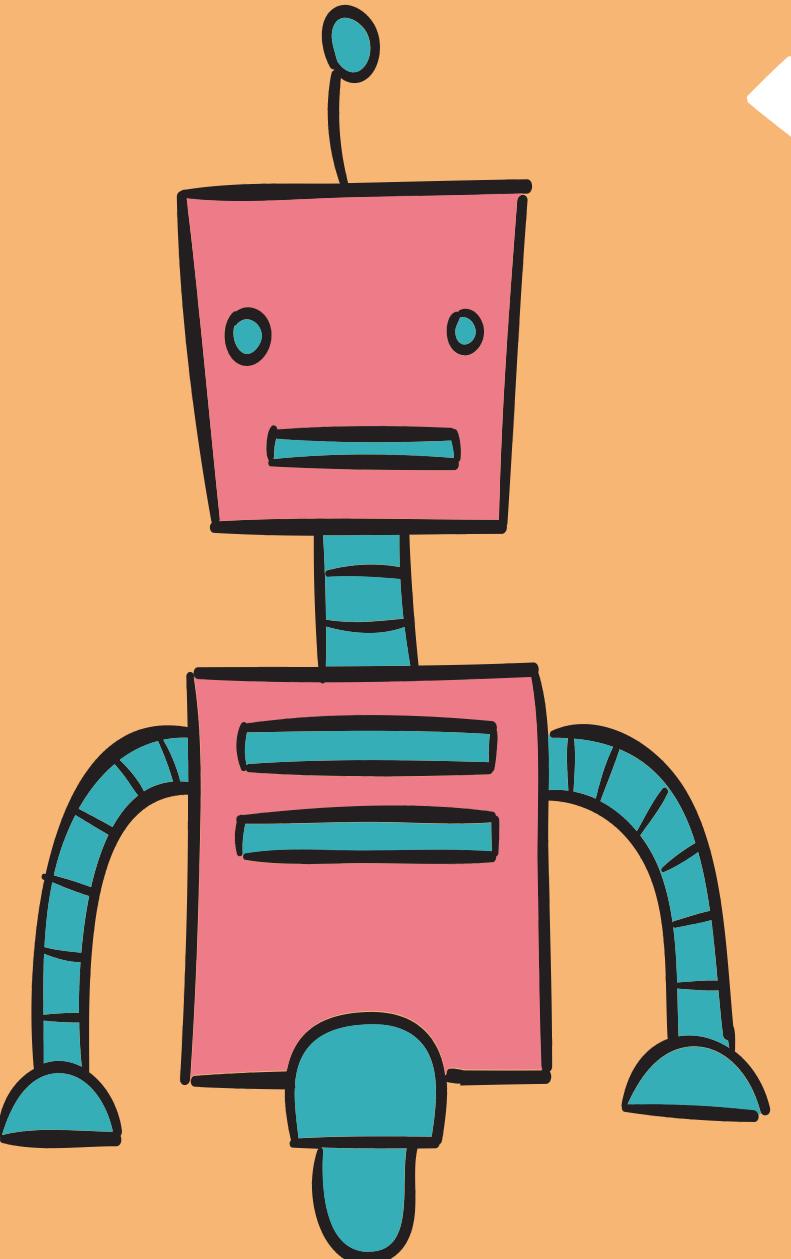
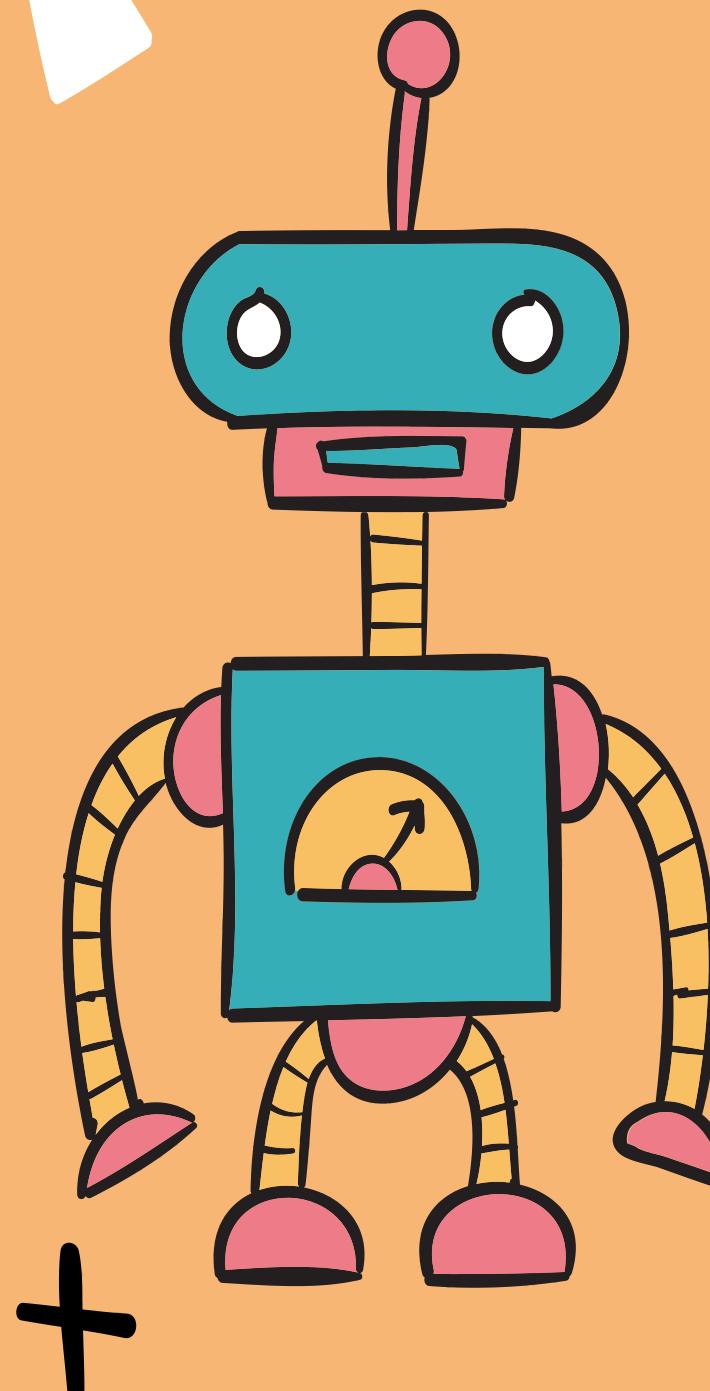
GAN

Introduced by GoodFellow and his collues in 2014 , this technology made revolutionary progress in both visual content creation and fake content detection .



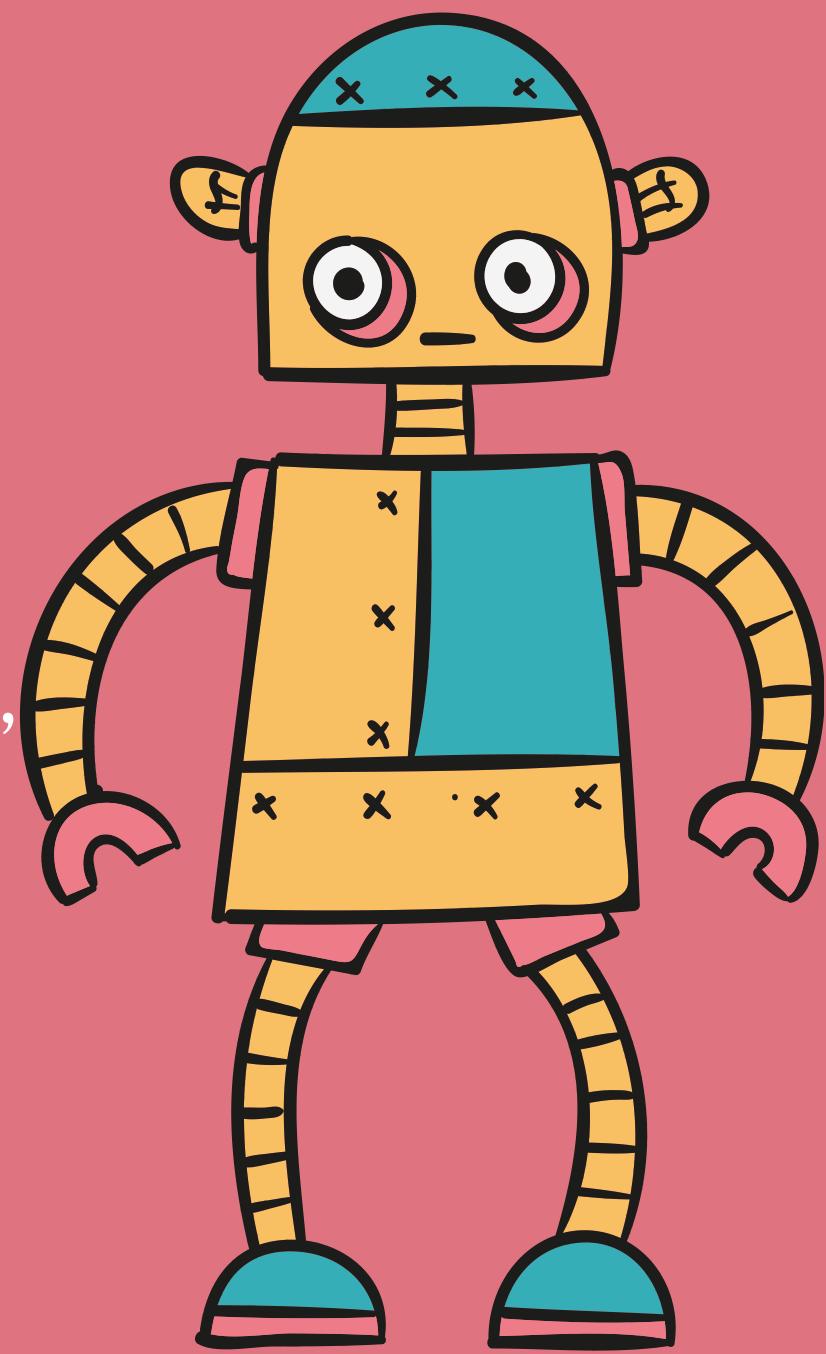


that is Fake ,
because of XYZ



GAN

the Generator will learn from the feedback offered by the discriminator , as it serves as guidance for the generator to adjust its variables and parameters . On the other hand , as you remember, models need massive amount of data to learn and the existing data is limited , data generated will serve as training data for the discriminator .



Thank You!

