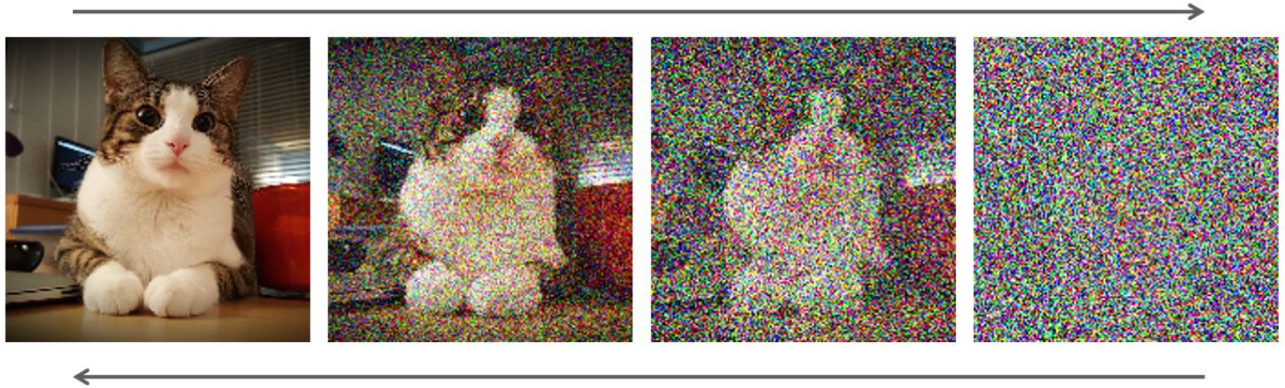
What is Stable Diffusion?

Discover the image generation model Stable Diffusion, to make AI art for your projects.

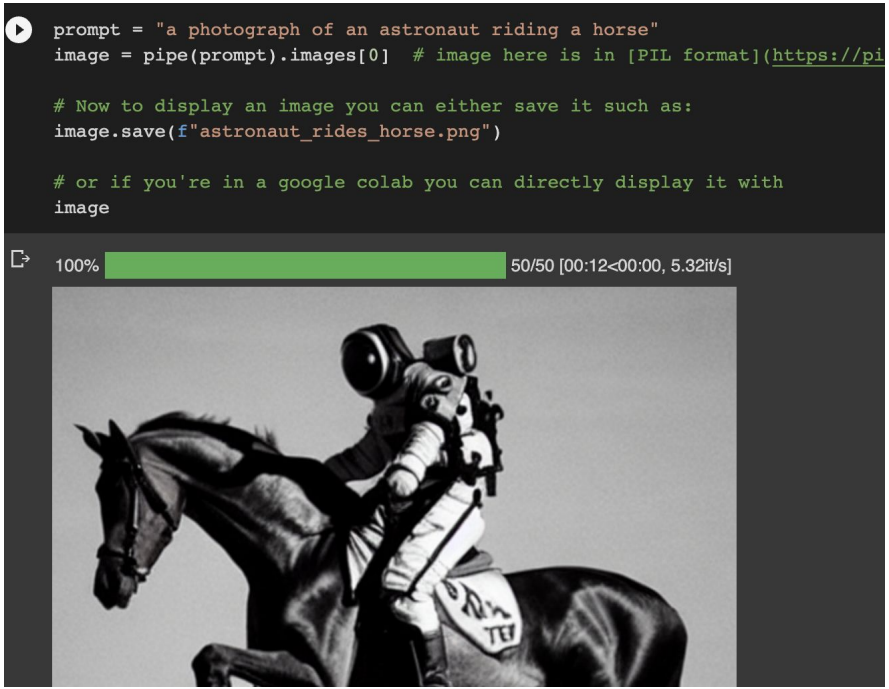
Diffusion Models



Source: Nvidia

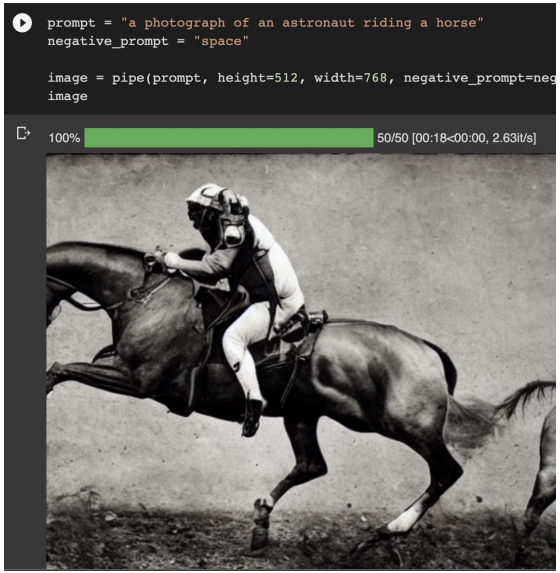
Stable Diffusion

- The only state of the art open-source model
- Collaboration between RunwayML & Stability AI
- Ability to train yourself with Dreambooth



Stable Diffusion Features

Negative prompts



CFG Scale

Dreambooth

Technical Ability

- Offers lots of flexibility in the way you use it
- Needs a GPU and coding ability to run locally
- Possible to build a business around it

```
[ ]  #@markdown Run to generate a grid of preview images from the last saved weigh
     import os
     import matplotlib.pyplot as plt
     import matplotlib.image as mpimg

     weights_folder = OUTPUT_DIR
     folders = sorted([f for f in os.listdir(weights_folder) if f != "0"], key=lam

     row = len(folders)
     col = len(os.listdir(os.path.join(weights_folder, folders[0], "samples")))
     scale = 4
     fig, axes = plt.subplots(row, col, figsize=(col*scale, row*scale), gridspec_k

     for i, folder in enumerate(folders):
         folder_path = os.path.join(weights_folder, folder)
         image_folder = os.path.join(folder_path, "samples")
         images = [f for f in os.listdir(image_folder)]
         for j, image in enumerate(images):
             if row == 1:
                 currAxes = axes[j]
             else:
                 currAxes = axes[i, j]
             if i == 0:
                 currAxes.set_title(f"Image {j}")
             if j == 0:
                 currAxes.text(-0.1, 0.5, folder, rotation=0, va='center', ha='cen
             image_path = os.path.join(image_folder, image)
             img = mpimg.imread(image_path)
             currAxes.imshow(img, cmap='gray')
             currAxes.axis('off')
```

Stable Diffusion Use Cases

Profile Pictures

Stock Photos

Product Placement