

+ Code + Text

T4 RAM Disk

## Import Thư viện

```
[1] !pip install diffusers accelerate safetensors transformers

Downloading nvidia_cuda_runtime_cu12-12.4.127-py3-none-manylinux2014_x86_64.whl (883 kB)
883.7/883.7 KB 13.9 MB/s eta 0:00:00
Downloading nvidia_cudnn_cu12-9.1.0.70-py3-none-manylinux2014_x86_64.whl (664.8 MB)
664.8/664.8 MB 2.2 MB/s eta 0:00:00
Downloading nvidia_cufft_cu12-11.2.1.3-py3-none-manylinux2014_x86_64.whl (211.5 MB)
211.5/211.5 MB 7.0 MB/s eta 0:00:00
Downloading nvidia_curand_cu12-10.3.5.147-py3-none-manylinux2014_x86_64.whl (56.3 MB)
56.3/56.3 MB 16.3 MB/s eta 0:00:00
Downloading nvidia_cusolver_cu12-11.6.1.9-py3-none-manylinux2014_x86_64.whl (127.9 MB)
127.9/127.9 MB 7.3 MB/s eta 0:00:00
Downloading nvidia_cusparses_cu12-12.3.1.170-py3-none-manylinux2014_x86_64.whl (207.5 MB)
207.5/207.5 MB 5.7 MB/s eta 0:00:00
Downloading nvidia_nvjitlink_cu12-12.4.127-py3-none-manylinux2014_x86_64.whl (21.1 MB)
21.1/21.1 MB 96.3 MB/s eta 0:00:00

Installing collected packages: nvidia-nvjitlink-cu12, nvidia-curand-cu12, nvidia-cufft-cu12, nvidia-cuda-runtime-cu12, nvidia-cuda-nvrtc-cu12, nvidia-cuda-cupti-cu12, nvidia-cublas-cu12
Attempting uninstall: nvidia-nvjitlink-cu12
Found existing installation: nvidia-nvjitlink-cu12 12.5.82
Uninstalling nvidia-nvjitlink-cu12-12.5.82:
Successfully uninstalled nvidia-nvjitlink-cu12-12.5.82
Attempting uninstall: nvidia-curand-cu12
Found existing installation: nvidia-curand-cu12 10.3.6.82
Uninstalling nvidia-curand-cu12-10.3.6.82:
Successfully uninstalled nvidia-curand-cu12-10.3.6.82
Attempting uninstall: nvidia-cufft-cu12
Found existing installation: nvidia-cufft-cu12 11.2.3.61
Uninstalling nvidia-cufft-cu12-11.2.3.61:
Successfully uninstalled nvidia-cufft-cu12-11.2.3.61
Attempting uninstall: nvidia-cuda-runtime-cu12
Found existing installation: nvidia-cuda-runtime-cu12 12.5.82
Uninstalling nvidia-cuda-runtime-cu12-12.5.82:
Successfully uninstalled nvidia-cuda-runtime-cu12-12.5.82
Attempting uninstall: nvidia-cuda-nvrtc-cu12
Found existing installation: nvidia-cuda-nvrtc-cu12 12.5.82
Uninstalling nvidia-cuda-nvrtc-cu12-12.5.82:
Successfully uninstalled nvidia-cuda-nvrtc-cu12-12.5.82
Attempting uninstall: nvidia-cuda-cupti-cu12
Found existing installation: nvidia-cuda-cupti-cu12 12.5.82
Uninstalling nvidia-cuda-cupti-cu12-12.5.82:
Successfully uninstalled nvidia-cuda-cupti-cu12-12.5.82
Attempting uninstall: nvidia-cublas-cu12
Found existing installation: nvidia-cublas-cu12 12.5.3.2
Uninstalling nvidia-cublas-cu12-12.5.3.2:
Successfully uninstalled nvidia-cublas-cu12-12.5.3.2
Attempting uninstall: nvidia-cusparses-cu12
Found existing installation: nvidia-cusparses-cu12 12.5.1.3
Uninstalling nvidia-cusparses-cu12-12.5.1.3:
Successfully uninstalled nvidia-cusparses-cu12-12.5.1.3
Attempting uninstall: nvidia-cudnn-cu12
Found existing installation: nvidia-cudnn-cu12 9.3.0.75
Uninstalling nvidia-cudnn-cu12-9.3.0.75:
Successfully uninstalled nvidia-cudnn-cu12-9.3.0.75
Attempting uninstall: nvidia-cusolver-cu12
Found existing installation: nvidia-cusolver-cu12 11.6.3.83
Uninstalling nvidia-cusolver-cu12-11.6.3.83:
Successfully uninstalled nvidia-cusolver-cu12-11.6.3.83
Successfully installed nvidia-cublas-cu12-12.4.5.8 nvidia-cuda-cupti-cu12-12.4.127 nvidia-cuda-nvrtc-cu12-12.4.127 nvidia-cuda-runtime-cu12-12.4.127 nvidia-cudnn-cu12-9.1.0.70 nvidia-
```

## Connect Drive

### Test 1 : Url từ Hugging face

```
import PIL
import requests
import torch
from diffusers import StableDiffusionInstructPix2PixPipeline, EulerAncestralDiscretesScheduler
import matplotlib.pyplot as plt

model_id = "timbrooks/instruct-pix2pix"
pipe = StableDiffusionInstructPix2PixPipeline.from_pretrained(model_id, torch_dtype=torch.float16, safety_checker=None)
pipe.to("cuda")
pipe.scheduler = EulerAncestralDiscretesScheduler.from_config(pipe.scheduler.config)

url = "https://raw.githubusercontent.com/timothybrooks/instruct-pix2pix/main/imgs/example.jpg"
def download_image(url):
    image = PIL.Image.open(requests.get(url, stream=True).raw)
    image = PIL.ImageOps.exif_transpose(image)
    image = image.convert("RGB")
    return image
image = download_image(url)

prompt = "turn him into cyborg"
images = pipe(prompt, image=image, num_inference_steps=10, image_guidance_scale=1).images
images[0]

# Hiển thị ảnh gốc và ảnh đã qua xử lý
fig, axes = plt.subplots(1, 2, figsize=(12, 6))

# Ảnh gốc (input)
axes[0].imshow(image)
axes[0].set_title("Input Image")
axes[0].axis("off")

# Ảnh đã qua xử lý (output)
```

```
from google.colab import files
axes[1].imshow(images[0])
axes[1].set_title("Output Image")
axes[1].axis("off")
```

```
plt.show()
```

(1)

```
warnings.warn(
model_index.json: 100% ██████████ 616/616 [00:00<00:00, 68.7kB/s]
Fetching 13 files: 100% ██████████ 13/13 [00:21<00:00, 2.13s/it]
model_safetensors: 100% ██████████ 492M/492M [00:05<00:00, 105MB/s]
tokenizer%2Fspecial_tokens_map.json: 100% ██████████ 472/472 [00:00<00:00, 6.58kB/s]
text_encoder%2Fconfig.json: 100% ██████████ 617/617 [00:00<00:00, 13.1kB/s]
scheduler%2Fscheduler_config.json: 100% ██████████ 569/569 [00:00<00:00, 7.55kB/s]
tokenizer%2Fvocab.json: 100% ██████████ 1.06M/1.06M [00:00<00:00, 5.93MB/s]
(...)ure_extractor%2Fpreprocessor_config.json: 100% ██████████ 518/518 [00:00<00:00, 7.25kB/s]
tokenizer%2Ftokenizer_config.json: 100% ██████████ 806/806 [00:00<00:00, 42.0kB/s]
diffusion_pytorch_model.safetensors: 100% ██████████ 3.44G/3.44G [00:21<00:00, 164MB/s]
diffusion_pytorch_model.safetensors: 100% ██████████ 335M/335M [00:03<00:00, 105MB/s]
unet%2Fconfig.json: 100% ██████████ 1.02k/1.02k [00:00<00:00, 28.2kB/s]
vae%2Fconfig.json: 100% ██████████ 553/553 [00:00<00:00, 19.7kB/s]
tokenizer%2Fmerges.txt: 100% ██████████ 525k/525k [00:00<00:00, 2.12MB/s]
Loading pipeline components...: 100% ██████████ 6/6 [00:05<00:00, 1.61s/it]
100% ██████████ 10/10 [00:01<00:00, 5.22it/s]
```

Input Image



Output Image

