```
import torch
from diffusers import AutoPipelineForText2Image
from PIL import Image
import os

# Load lightweight Stable Diffusion Turbo model
pipe = AutoPipelineForText2Image.from_pretrained(
    "stabilityai/sd-turbo",
    torch_dtype=torch.float16
)

# Use CPU if GPU not available
device = "cuda" if torch.cuda.is_available() else "cpu"
pipe = pipe.to(device)

# Prompts
prompts = [
    "Chest X-ray, AP view, elderly female, clear lung fields, no infiltrate
    "Chest X-ray, PA view, adult, focal lobar consolidation in right lower
    "Chest X-ray, PA view, focal opacity in right middle lobe, radiodense
    "Chest X-ray, PA view, blunting of costophrenic angle, pleural effusio
    "Chest X-ray, PA view, cardiomegaly with enlarged cardiac silhouette, r
    "Chest X-ray, AP view, endotracheal tube and central venous catheter i
    "Chest X-ray, PA view, motion artifact causing blurred ribs and diaphra
    "Chest X-ray, AP view, supine position, portable ICU radiograph",
    "Chest X-ray, portable AP imaging, ICU setting, low-resolution clinica
    "Chest X-ray, PA view, cardiomegaly with enlarged cardiac silhouette, r
]

# Output directory
output_dir = "Medical_dataset"
os.makedirs(output_dir, exist_ok=True)

# Generate images
for idx, prompt in enumerate(prompts):
    image = pipe(
        prompt=prompt,
        num_inference_steps=4,   # very lightweight
        guidance_scale=0.0
    ).images[0]

    image.save(f"{output_dir}/image_{idx+1}.png")

print("Synthetic dataset generated successfully!")
```

```
import os
from PIL import Image
```

```
import matplotlib.pyplot as plt

folder = "/content/Medical_dataset/"

for file in os.listdir(folder):
    if file.endswith(".png"):
        img = Image.open(folder + file)
        plt.figure(figsize=(4,4))
        plt.imshow(img)
        plt.axis('off')
        plt.title(file)
        plt.show()
```

```
vocab.json:         1.06M/? [00:00<00:00, 10.6MB/s]

special_tokens_map.json: 100%                                   574/574 [00:00<00:00, 8.57kB/s]

merges.txt:         525k/? [00:00<00:00, 6.81MB/s]

scheduler_config.json: 100%                                     553/553 [00:00<00:00, 23.9kB/s]

config.json: 100%                                               618/618 [00:00<00:00, 8.40kB/s]

config.json: 100%                                               655/655 [00:00<00:00, 24.4kB/s]

unet/diffusion_pytorch_model.safetensors: 100%                  3.46G/3.46G [00:41<00:00, 177MB/s]

vae/diffusion_pytorch_model.safetensors: 100%                   335M/335M [00:23<00:00, 11.0MB/s]

text_encoder/model.safetensors: 100%                            1.36G/1.36G [00:40<00:00, 73.3MB/s]

config.json:        1.87k/? [00:00<00:00, 107kB/s]

Loading pipeline components...: 100%                                    5/5 [00:17<00:00,  3.38s/it]

`torch_dtype` is deprecated! Use `dtype` instead!
You have disabled the safety checker for <class 'diffusers.pipelines.stable_diff

100%                                                    4/4 [00:01<00:00,  2.59it/s]

100%                                                    4/4 [00:00<00:00, 17.11it/s]

100%                                                    4/4 [00:00<00:00, 15.15it/s]

100%                                                    4/4 [00:00<00:00, 17.16it/s]

100%                                                    4/4 [00:00<00:00, 17.49it/s]

100%                                                    4/4 [00:00<00:00, 17.34it/s]

100%                                                    4/4 [00:00<00:00, 14.97it/s]

100%                                                    4/4 [00:00<00:00, 15.32it/s]

100%                                                    4/4 [00:00<00:00, 15.55it/s]

100%                                                    4/4 [00:00<00:00, 16.84it/s]

Synthetic dataset generated successfully!
```

image_10.png

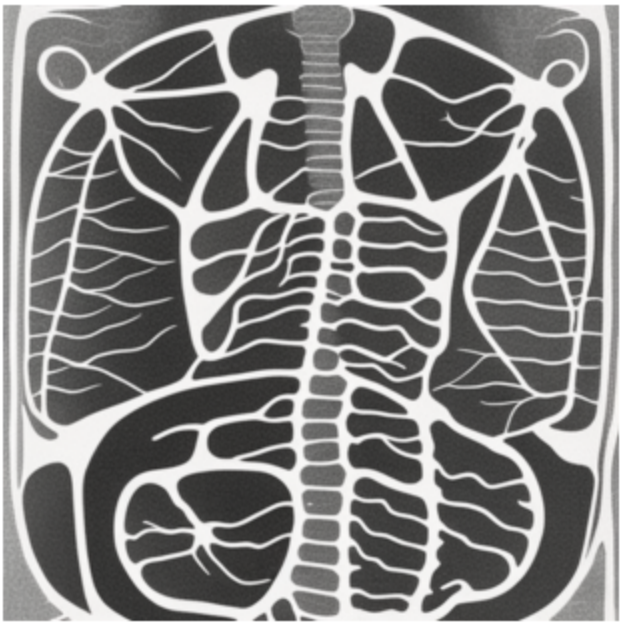


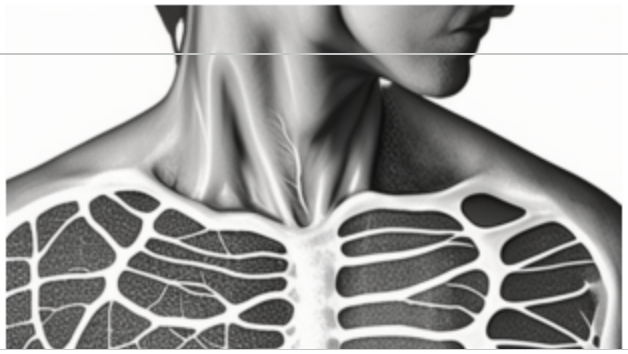
image_9.png

image_8.png

image_4.png

image_2.png

image_3.png



Start coding or generate with AI.

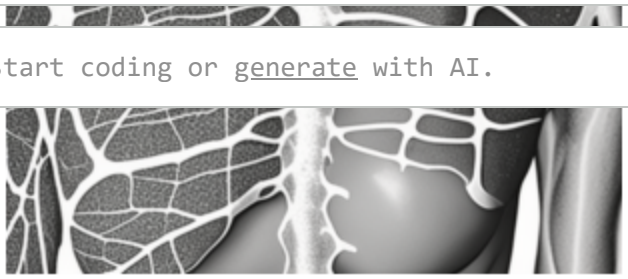


image_7.png