

```

Requirement already satisfied: diffusers in /usr/local/lib/python3.11/dist-packages (0.34.0)
Requirement already satisfied: transformers in /usr/local/lib/python3.11/dist-packages (4.55.0)
Requirement already satisfied: accelerate in /usr/local/lib/python3.11/dist-packages (1.10.0)
Requirement already satisfied: importlib_metadata in /usr/local/lib/python3.11/dist-packages (from diffusers) (8.7.0)
Requirement already satisfied: filelock in /usr/local/lib/python3.11/dist-packages (from diffusers) (3.18.0)
Requirement already satisfied: huggingface_hub>=0.27.0 in /usr/local/lib/python3.11/dist-packages (from diffusers) (0.34.4)
Requirement already satisfied: numpy in /usr/local/lib/python3.11/dist-packages (from diffusers) (2.0.2)
Requirement already satisfied: regex<=2019.12.17 in /usr/local/lib/python3.11/dist-packages (from diffusers) (2024.11.6)
Requirement already satisfied: requests in /usr/local/lib/python3.11/dist-packages (from diffusers) (2.32.3)
Requirement already satisfied: safetensors>=0.3.1 in /usr/local/lib/python3.11/dist-packages (from diffusers) (0.6.2)
Requirement already satisfied: Pillow in /usr/local/lib/python3.11/dist-packages (from diffusers) (11.3.0)
Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.11/dist-packages (from transformers) (25.0)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.11/dist-packages (from transformers) (6.0.2)
Requirement already satisfied: tokenizers<0.22,>=0.21 in /usr/local/lib/python3.11/dist-packages (from transformers) (0.21.4)
Requirement already satisfied: tqdm>=4.27 in /usr/local/lib/python3.11/dist-packages (from transformers) (4.67.1)
Requirement already satisfied: psutil in /usr/local/lib/python3.11/dist-packages (from accelerate) (5.9.5)
Requirement already satisfied: torch>=2.0.0 in /usr/local/lib/python3.11/dist-packages (from accelerate) (2.6.0+cu124)
Requirement already satisfied: fsspec>=2023.5.0 in /usr/local/lib/python3.11/dist-packages (from huggingface_hub>=0.27.0->diffusers) (2024.10.1)
Requirement already satisfied: typing_extensions>=3.7.4.3 in /usr/local/lib/python3.11/dist-packages (from huggingface_hub>=0.27.0->diffusers) (4.12.2)
Requirement already satisfied: hf_xet<2.0.0,>=1.1.3 in /usr/local/lib/python3.11/dist-packages (from huggingface_hub>=0.27.0->diffusers) (1.1.3)
Requirement already satisfied: networkx in /usr/local/lib/python3.11/dist-packages (from torch>=2.0.0->accelerate) (3.5)
Requirement already satisfied: Jinja2 in /usr/local/lib/python3.11/dist-packages (from torch>=2.0.0->accelerate) (3.1.6)
Collecting nvidia_cuda_nvrtc_cu12==12.4.127 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cuda_nvrtc_cu12-12.4.127-py3-none-manylinux2014_x86_64.whl.metadata (1.5 kB)
Collecting nvidia_cuda_runtime_cu12==12.4.127 (from torch>=2.0.0->accelerate)
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Collecting nvidia_cuda_cupti_cu12==12.4.127 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cuda_cupti_cu12-12.4.127-py3-none-manylinux2014_x86_64.whl.metadata (1.6 kB)
Collecting nvidia_cudnn_cu12==9.1.0.70 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cudnn_cu12-9.1.0.70-py3-none-manylinux2014_x86_64.whl.metadata (1.6 kB)
Collecting nvidia_cublas_cu12==12.4.5.8 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cublas_cu12-12.4.5.8-py3-none-manylinux2014_x86_64.whl.metadata (1.5 kB)
Collecting nvidia_cufft_cu12==11.2.1.3 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cufft_cu12-11.2.1.3-py3-none-manylinux2014_x86_64.whl.metadata (1.5 kB)
Collecting nvidia_curand_cu12==10.3.5.147 (from torch>=2.0.0->accelerate)
  Downloading nvidia_curand_cu12-10.3.5.147-py3-none-manylinux2014_x86_64.whl.metadata (1.5 kB)
Collecting nvidia_cusolver_cu12==11.6.1.9 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cusolver_cu12-11.6.1.9-py3-none-manylinux2014_x86_64.whl.metadata (1.6 kB)
Collecting nvidia_cusparselt_cu12==12.3.1.170 (from torch>=2.0.0->accelerate)
  Downloading nvidia_cusparselt_cu12-12.3.1.170-py3-none-manylinux2014_x86_64.whl.metadata (1.6 kB)
Requirement already satisfied: nvidia-cusparse-cu12==12.3.1.170 in /usr/local/lib/python3.11/dist-packages (from torch>=2.0.0->accelerate)
Collecting nvidia_nccl_cu12==2.21.5 (from torch>=2.0.0->accelerate)
  Downloading nvidia_nccl_cu12-2.21.5-py3-none-manylinux2014_x86_64.whl.metadata (1.8 kB)
Requirement already satisfied: nvidia-nvtx-cu12==12.4.127 in /usr/local/lib/python3.11/dist-packages (from torch>=2.0.0->accelerate)
Collecting nvidia_nvjitlink_cu12==12.4.127 (from torch>=2.0.0->accelerate)
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Requirement already satisfied: triton==3.2.0 in /usr/local/lib/python3.11/dist-packages (from torch>=2.0.0->accelerate) (3.2.0)
Requirement already satisfied: sympy==1.13.1 in /usr/local/lib/python3.11/dist-packages (from torch>=2.0.0->accelerate) (1.13.1)
Requirement already satisfied: mpmath<1.4,>=1.1.0 in /usr/local/lib/python3.11/dist-packages (from sympy==1.13.1->torch>=2.0.0->accelerate) (1.3.0)
Requirement already satisfied: zipp>=3.20 in /usr/local/lib/python3.11/dist-packages (from importlib_metadata->diffusers) (3.23.0)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests->diffusers) (3.4.3)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.11/dist-packages (from requests->diffusers) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests->diffusers) (2.5.0)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.11/dist-packages (from requests->diffusers) (2025.8.3)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.11/dist-packages (from Jinja2->torch>=2.0.0->accelerate) (3.0.2)
Downloading nvidia_cublas_cu12-12.4.5.8-py3-none-manylinux2014_x86_64.whl (363.4 MB)
363.4/363.4 MB 3.8 MB/s eta 0:00:00

```

```
!nvidia-smi
```

NVIDIA-SMI 550.54.15										Driver Version: 550.54.15				CUDA Version: 12.4					
GPU		Name		Persistence-M				Bus-Id		Disp.A		Volatile Uncorr. ECC							
Fan		Temp		Pwr:Usage/Cap						Memory-Usage		GPU-Util Compute M. MIG M.							
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0		Tesla T4		Off				00000000:00:04.0		Off		0							
N/A		35C P8		9W / 70W				2MiB /		15360MiB		0% Default N/A							
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Processes:						
GPU	GI	CI	PID	Type	Process name	GPU Memory
ID	ID	ID				Usage
=====						
No running processes found						
+-----+						

```
!pip show torch
```

```

Name: torch
Version: 2.6.0+cu124
Summary: Tensors and Dynamic neural networks in Python with strong GPU acceleration
Home-page: https://pytorch.org/
Author: PyTorch Team
Author-email: packages@pytorch.org
License: BSD-3-Clause
Location: /usr/local/lib/python3.11/dist-packages
Requires: filelock, fsspec, Jinja2, networkx, nvidia-cublas-cu12, nvidia-cuda-cupti-cu12, nvidia-cuda-nvrtc-cu12, nvidia-cuda-runtime-cu12, nvidia-cuda-toolkit-cu12, nvidia-nccl-cu12, nvidia-nvtx-cu12, packaging, sympy, typing-extensions
Required-by: accelerate, fastai, peft, sentence-transformers, timm, torchaudio, torchdata, torchvision

```

```

model_id1 = "dreamlike-art/dreamlike-diffusion-1.0"
model_id2 = "stabilityai/stable-diffusion-xl-base-1.0"

```

```

pipe = StableDiffusionXLPipeline.from_pretrained(model_id2, torch_dtype=torch.float16, use_safetensors=True)
pipe = pipe.to("cuda")

```

```

/usr/local/lib/python3.11/dist-packages/huggingface_hub/utils/_auth.py:94: UserWarning:
The secret `HF_TOKEN` does not exist in your Colab secrets.
To authenticate with the Hugging Face Hub, create a token in your settings tab (https://huggingface.co/settings/tokens), set it as secret in your Colab secrets, and use `token` as the secret name.
You will be able to reuse this secret in all of your notebooks.
Please note that authentication is recommended but still optional to access public models or datasets.

```

```

warnings.warn(
model_index.json: 100% 609/609 [00:00<00:00, 60.1kB/s]

Fetching 19 files: 100% 19/19 [11:04<00:00, 39.76s/it]

merges.txt: 525k/? [00:00<00:00, 7.85MB/s]

config.json: 100% 565/565 [00:00<00:00, 17.0kB/s]

scheduler_config.json: 100% 479/479 [00:00<00:00, 12.7kB/s]

config.json: 100% 575/575 [00:00<00:00, 10.0kB/s]

tokenizer_config.json: 100% 737/737 [00:00<00:00, 9.60kB/s]

special_tokens_map.json: 100% 472/472 [00:00<00:00, 6.47kB/s]

text_encoder/model.safetensors: 100% 492M/492M [01:59<00:00, 2.86MB/s]

text_encoder_2/model.safetensors: 100% 2.78G/2.78G [06:39<00:00, 3.59MB/s]

vocab.json: 1.06M/? [00:00<00:00, 8.28MB/s]

special_tokens_map.json: 100% 460/460 [00:00<00:00, 13.9kB/s]

tokenizer_config.json: 100% 725/725 [00:00<00:00, 39.8kB/s]

config.json: 1.68k/? [00:00<00:00, 39.5kB/s]

config.json: 100% 642/642 [00:00<00:00, 17.8kB/s]

UNET/diffusion_pytorch_model.safetensors: 100% 10.3G/10.3G [11:03<00:00, 41.2MB/s]

vae/diffusion_pytorch_model.safetensors: 100% 335M/335M [02:19<00:00, 4.45MB/s]

vae_1_0/diffusion_pytorch_model.safetensors(...): 100% 335M/335M [03:48<00:00, 1.32MB/s]

Loading pipeline components...: 100% 7/7 [01:00<00:00, 4.65s/it]

```

```

prompt = """a cat with a gun in the background
"""

```

```
image = pipe(prompt).images[0]
```

```

100% 50/50 [00:39<00:00, 1.24it/s]

```

```
image
```

