StableDiffusion Model - Created image using text prompt - by Sunitha Mekala

Fri Feb 7 07:45:21 2025

```
+-----------------------------------------------------------------------------+
| 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   Perf          Pwr:Usage/Cap |         Memory-Usage | GPU-Util  Compute M. |
|                                         |                      |               MIG M. |
|=========================================+======================+======================|
|   0  Tesla T4                      Off |   00000000:00:04.0 Off |                    0 |
| N/A   55C    P8             10W /   70W |      0MiB /  15360MiB |      0%      Default |
|                                         |                      |                  N/A |
+-----------------------------------------+----------------------+----------------------+

+-----------------------------------------------------------------------------+
| Processes:                                                                  |
|  GPU   GI   CI        PID   Type   Process name                  GPU Memory |
|        ID   ID                                                   Usage      |
|=============================================================================|
|  No running processes found                                                 |
+-----------------------------------------------------------------------------+
```

!nvidia-smi

Fri Feb 7 08:06:46 2025

```
+-----------------------------------------------------------------------------+
| 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   Perf          Pwr:Usage/Cap |         Memory-Usage | GPU-Util  Compute M. |
|                                         |                      |               MIG M. |
|=========================================+======================+======================|
|   0  Tesla T4                      Off |   00000000:00:04.0 Off |                    0 |
| N/A   61C    P8             11W /   70W |      0MiB /  15360MiB |      0%      Default |
|                                         |                      |                  N/A |
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| Processes:                                                                  |
```

```
|  GPU   GI   CI        PID   Type   Process name                          GPU Memory |
|        ID   ID                                                           Usage      |
|=====================================================================================|
|  No running processes found                                                         |
+-------------------------------------------------------------------------------------+
```

pip install -U diffusers

⮑ Requirement already satisfied: diffusers in /usr/local/lib/python3.11/dist-packages (0.32.2)
    Requirement already satisfied: importlib-metadata in /usr/local/lib/python3.11/dist-packages (from diffusers) (8.6.1)
    Requirement already satisfied: filelock in /usr/local/lib/python3.11/dist-packages (from diffusers) (3.17.0)
    Requirement already satisfied: huggingface-hub>=0.23.2 in /usr/local/lib/python3.11/dist-packages (from diffusers) (0.2
    Requirement already satisfied: numpy in /usr/local/lib/python3.11/dist-packages (from diffusers) (1.26.4)
    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) (0.5.2)
    Requirement already satisfied: Pillow in /usr/local/lib/python3.11/dist-packages (from diffusers) (11.1.0)
    Requirement already satisfied: fsspec>=2023.5.0 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.23.
    Requirement already satisfied: packaging>=20.9 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.23.2
    Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.23.2->di
    Requirement already satisfied: tqdm>=4.42.1 in /usr/local/lib/python3.11/dist-packages (from huggingface-hub>=0.23.2->d
    Requirement already satisfied: typing-extensions>=3.7.4.3 in /usr/local/lib/python3.11/dist-packages (from huggingface-
    Requirement already satisfied: zipp>=3.20 in /usr/local/lib/python3.11/dist-packages (from importlib-metadata->diffuser
    Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests->diff
    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)
    Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.11/dist-packages (from requests->diffusers)

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from huggingface_hub import notebook_login

notebook_login()

⮑

from diffusers import StableDiffusionPipeline
import torch

model_id = "sd-legacy/stable-diffusion-v1-5"

```
pipe = StableDiffusionPipeline.from_pretrained(model_id, torch_dtype=torch.float16)
pipe = pipe.to("cuda")

prompt = "Persons walking with umbrellas"
image = pipe(prompt).images[0]

image.save("people walking.png")
```

Loading pipeline components...: 100%   7/7 [00:24<00:00, 2.73s/it]

100%   50/50 [00:07<00:00, 7.12it/s]