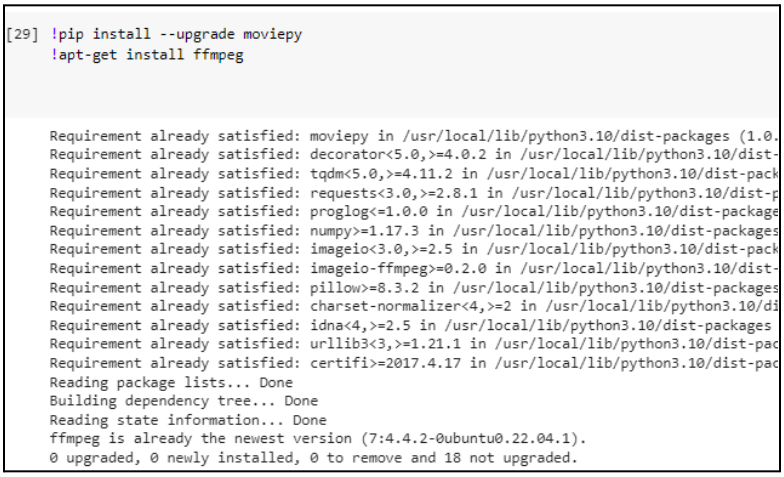
AnimeGAN Homework
Tiana Le
animeGAN_inference

I spent a lot of time trying to locally install animeGAN on my computer. What kept me from using animeGAN on my computer, is that I got an error related to CUDA not being compatible with the version of python I had. I've run into CUDA issues before and I still don't quite understand the point of CUDA and why different programs require different CUDA versions and also why GPU's require additional CUDA installations.

The error message was suggesting that I install an older python version. I decided not to proceed because I was afraid it would mess up my local installation of a different AI tool that I use on a weekly basis. I tried to figure out how to make a virtual environment for animeGAN but I still got the same error. I looked into setting up a virtual environment because the other AI image based tool I use, uses a "venv". Since I got the same CUDA error when trying to set up a virtual environment, I decided it's probably best I hold off on that; animeGAN isn't a tool I plan to use again.

I ended up using Google Colab for animeGAN. The notebook is pretty straightforward and I was able to generate some images quickly. I tried to input a video into the colab notebook but ran into some errors. I tried various things such as using a shorter video clip, directing the code in colab to a folder of a PNG sequence instead of an MP4, but I got a moviepy error related to FFMPEG. I used chatGPT to help me troubleshoot but even after I tried to install moviepy and ffmpeg, it didn't work.

I tried to install moviepy and ffmpeg:



```
[29] !pip install --upgrade moviepy
     !apt-get install ffmpeg

     Requirement already satisfied: moviepy in /usr/local/lib/python3.10/dist-packages (1.0.
     Requirement already satisfied: decorator<5.0,>=4.0.2 in /usr/local/lib/python3.10/dist-
     Requirement already satisfied: tqdm<5.0,>=4.11.2 in /usr/local/lib/python3.10/dist-pack
     Requirement already satisfied: requests<3.0,>=2.8.1 in /usr/local/lib/python3.10/dist-p
     Requirement already satisfied: proglog<=1.0.0 in /usr/local/lib/python3.10/dist-package
     Requirement already satisfied: numpy>=1.17.3 in /usr/local/lib/python3.10/dist-packages
     Requirement already satisfied: imageio<3.0,>=2.5 in /usr/local/lib/python3.10/dist-pack
     Requirement already satisfied: imageio-ffmpeg>=0.2.0 in /usr/local/lib/python3.10/dist-
     Requirement already satisfied: pillow>=8.3.2 in /usr/local/lib/python3.10/dist-packages
     Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/di
     Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages
     Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-pac
     Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-pac
     Reading package lists... Done
     Building dependency tree... Done
     Reading state information... Done
     ffmpeg is already the newest version (7:4.4.2-0ubuntu0.22.04.1).
     0 upgraded, 0 newly installed, 0 to remove and 18 not upgraded.
```

MoviePy error: FFMPEG encountered the following error while writing file /content/result.mp4

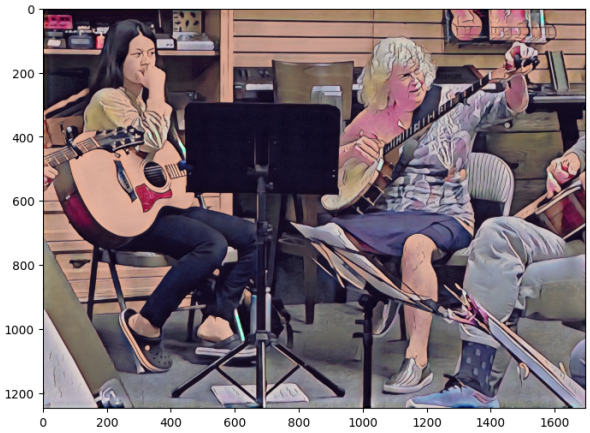
```
!python3 inference_video.py --checkpoint hayao\
                        --src /content/mexico2.mp4\
                        --dest /content/result.mp4\
                        --batch-size 2
```

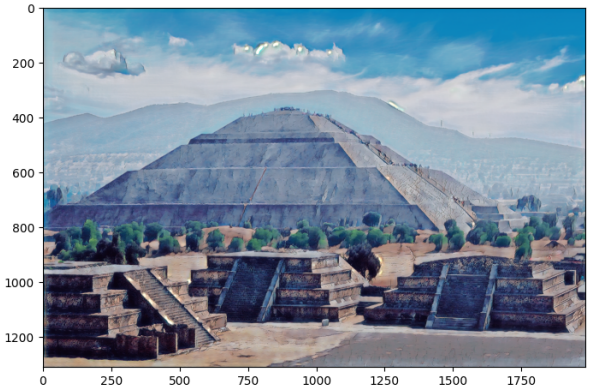
```
Weight loaded, ready to predict
Transfroming video /content/mexico2.mp4, 30 frames, size: [720, 1280]
2it [00:01,  1.29it/s][Errno 32] Broken pipe

MoviePy error: FFMPEG encountered the following error while writing file /content/result.mp4:

 b''
3it [00:07,  2.41s/it]
Traceback (most recent call last):
  File "/content/Pytorch-animeGAN/inference_video.py", line 25, in <module>
    main(args)
  File "/content/Pytorch-animeGAN/inference_video.py", line 18, in main
    Transformer(args.checkpoint).transform_video(args.src, args.dest,
  File "/content/Pytorch-animeGAN/inference.py", line 145, in transform_video
    transform_and_write(frames, frame_count, video_writer)
  File "/content/Pytorch-animeGAN/inference.py", line 113, in transform_and_write
    writer.write_frame(img)
  File "/usr/local/lib/python3.10/dist-packages/moviepy/video/io/ffmpeg_writer.py", line 136, in write_frame
    self.proc.stdin.write(img_array.tobytes())
ValueError: write to closed file
```

Below are the results from animeGAN_inference.





I was curious to try inputting an unrealistic picture that is closer to a drawing to see what I would get: