



CYCLE  
GAN  
ON CARTOON SERIES



# DATA ACQUISITION



DOWNLOAD CARTOONS TO TRAIN  
THE MODEL



FRAMES 256X256 ARE FED  
INTO THE MODEL.

I HAVE CUT 2 FRAMES FROM  
THE CENTER TO THE RIGHT  
AND TO THE LEFT FROM EACH  
ORIGINAL FRAME



MANY BACKGROUND FRAMES  
CONTAINING LITTLE INFORMATION.

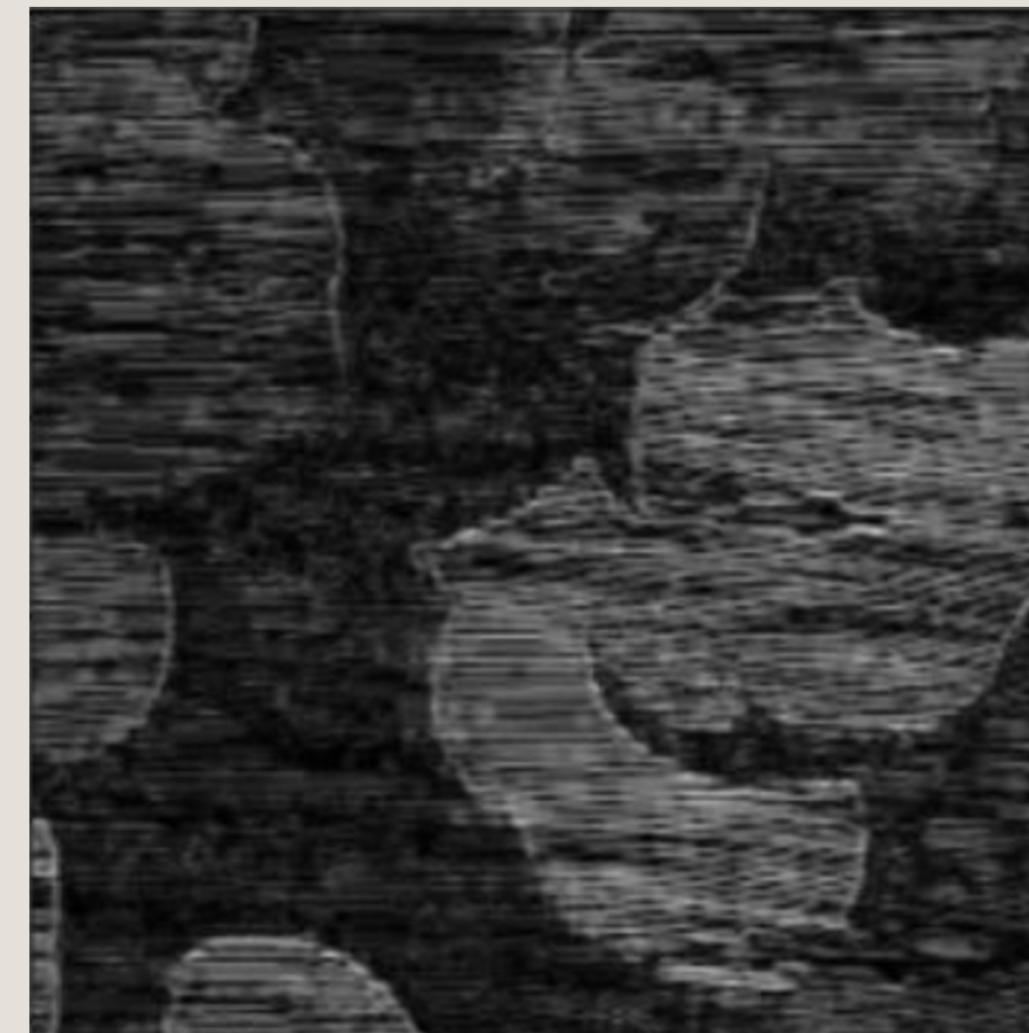
```
sobel_kernel = np.array([[-1, -2, -1],  
                        [ 0,  0,  0],  
                        [ 1,  2,  1]])
```

APPLIED A SOBEL FILTER TO THE FRAMES,  
HOPING TO OBTAIN CONTOURS THAT WILL  
SHOW HOW INFORMATIVE A FRAME IS.

A FEW FRAMES THAT ARE CLEAR IN TERMS OF INFORMATIVENESS AND  
SELECT A THRESHOLD FOR PAINTING THE PIXEL WHITE.



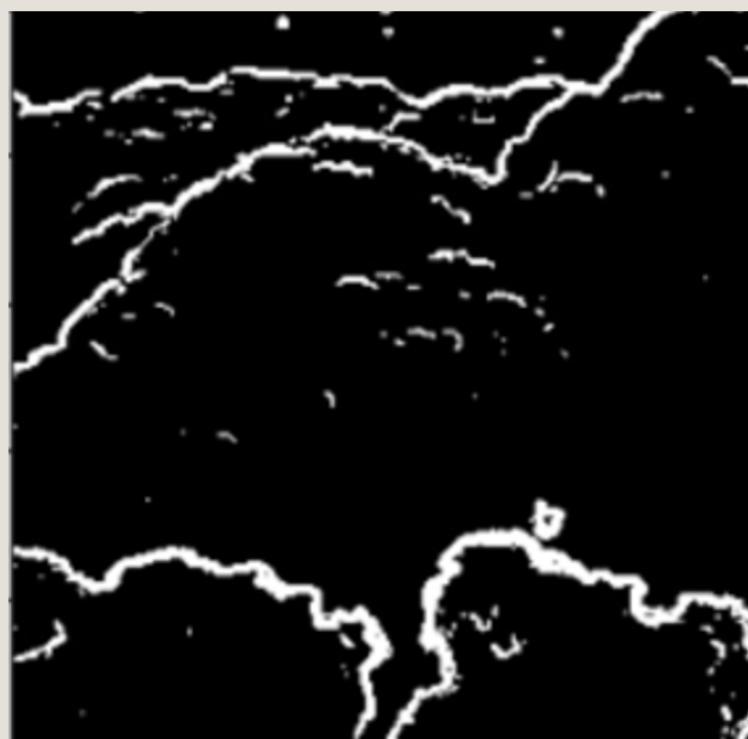
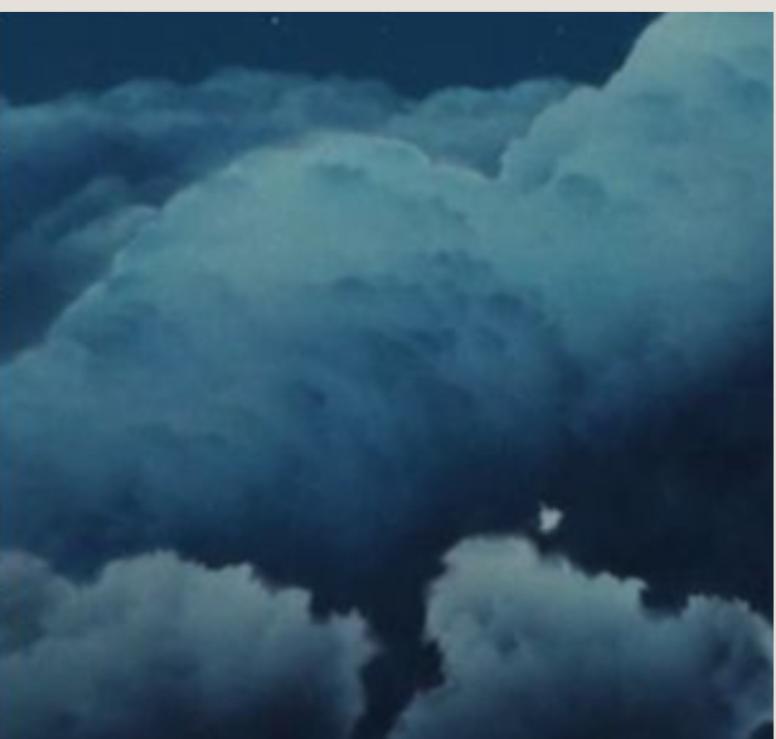
ORIGINAL FRAME



SOBEL FILTER PAINTED WHITE EVERYTHING  
ABOVE THE THRESHOLD



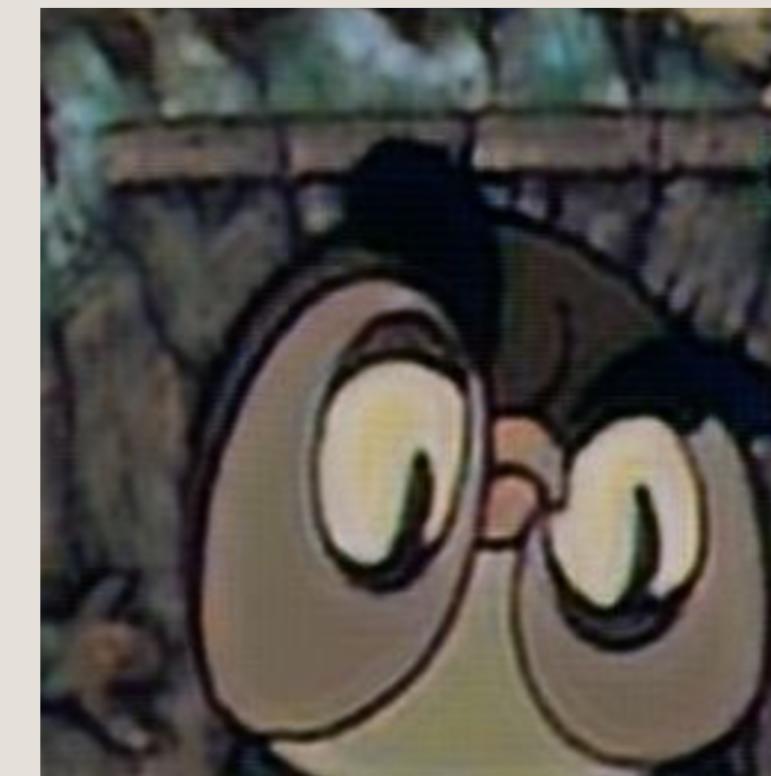
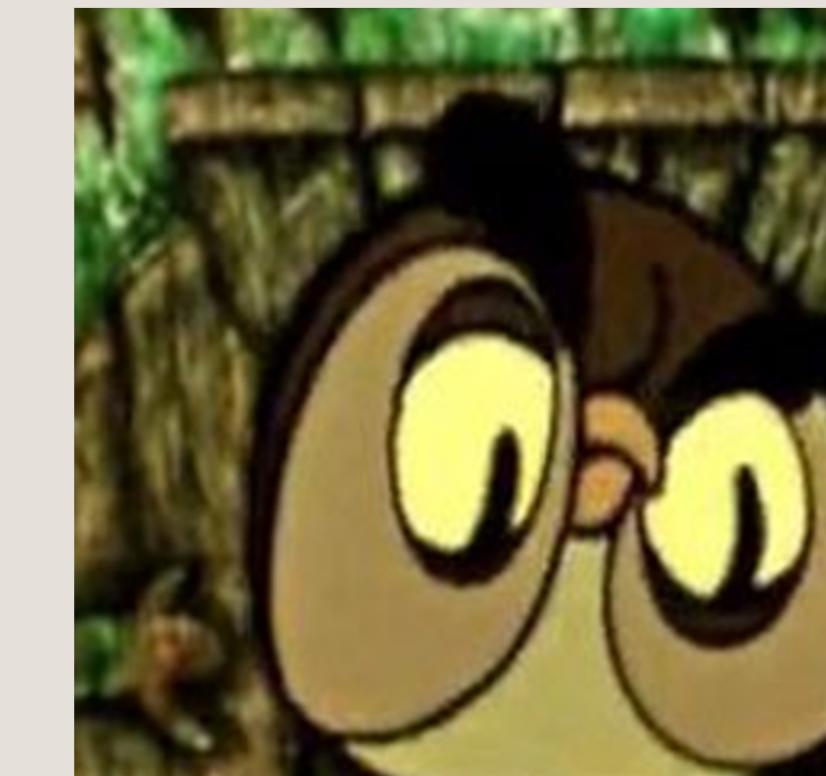
# SOBEL FILTER IN ACTION



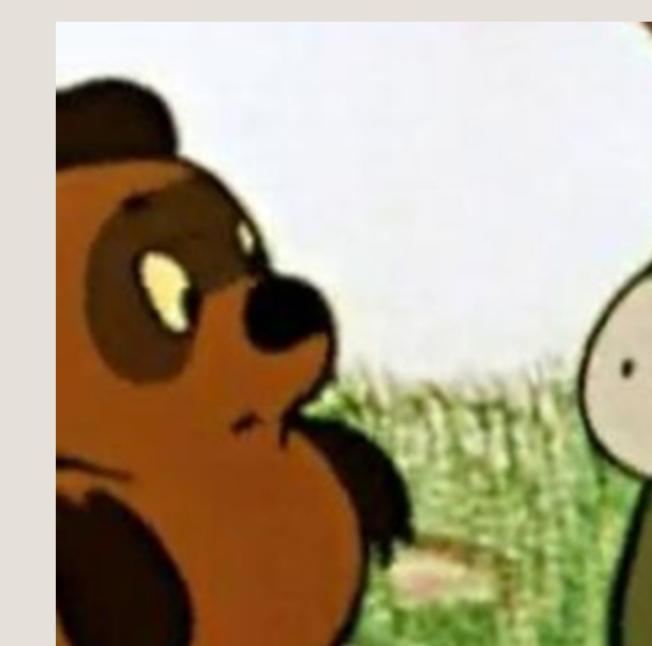
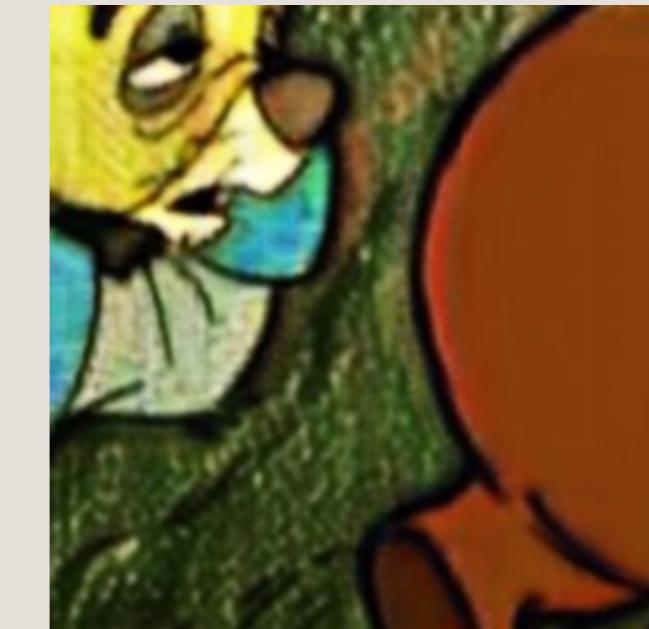
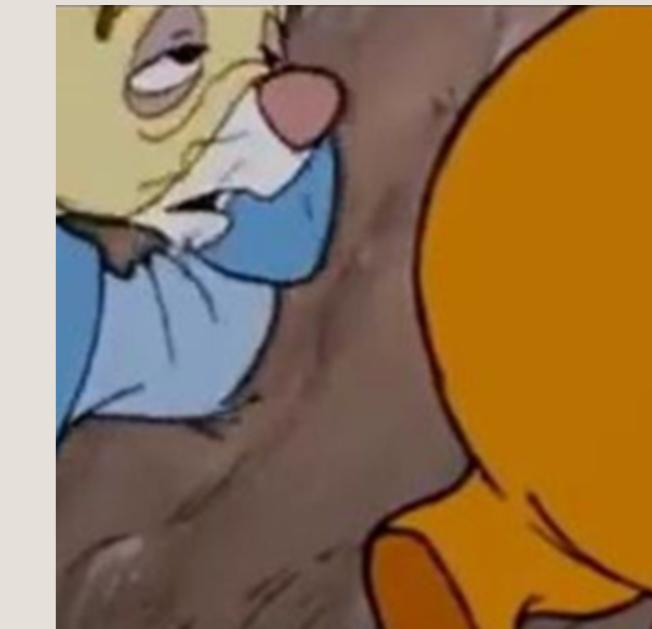
**THE IDEA WAS TO REMOVE THE CONTENT LOSS TERM, HOPING TO TRANSFER MORE OF THE STYLE.**



# WINNIE THE POOH: ORIGINAL LOSS FUNCTION + NEW ARCHITECTURE FROM THE PAPER



# OVER 50 EPOCHS



SUBSEQUENTLY, PROCESS ONE  
OR TWO THOUSAND FRAMES  
USING THE TRAINED MODEL TO  
GENERATE THE FINAL VIDEO.

Enjoy the viewing!

SARVAGYA TAYAL

