

# Results

Here you can see that I have displayed my results from choosing three different frames from the video dataset and displaying the top 5 most similar frames. The three images on the first row are the three images that I chose. For experimental purposes, I have intentionally chosen the images with a distinct pattern. For the first two, you can see how Rachel was wearing a distinct pattern of shirt. By choosing these two for demonstration, my program was able to yield the desired result. For the last one, I chose the singer as my query image because of the shirt's distinct texture and the special lighting on the image. Overall, I was very satisfied with my results.



# Some other examples:

You can see that from the pictures from the first column, the program is able to recognize the pattern on Rachel's shirt, however, since the reference image only consisted of a small portion of the pattern, the output was therefore not very desirable. However, you can still see the same pattern being displayed in most of the images.





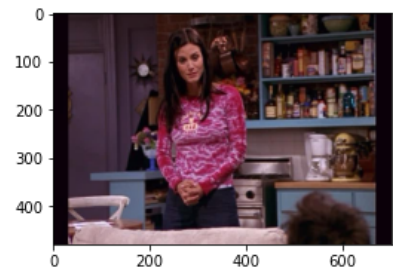
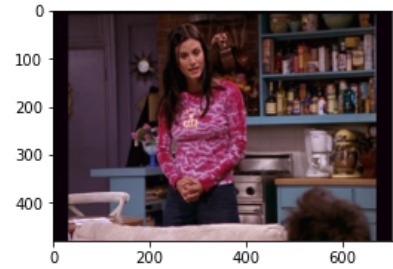
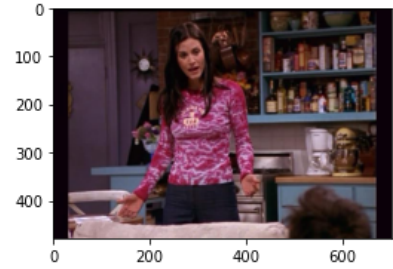
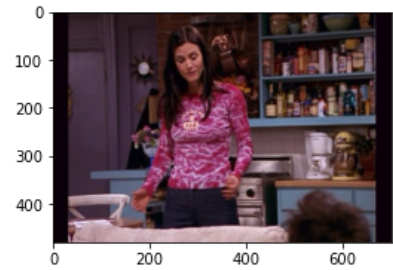
# Successful examples:

For my first successful example, I chose the section of Rachel's patterned shirt, and it yields successful results. The common repetition of the patterns and the large section of patterns resulted in these images outrank the rest, thus output a successful result.



# Successful examples:

For my second successful example, I chose the section of Monica's patterned shirt, and it yields successful results. The common repetition of the texture and distinct patterns resulted in these images outrank the rest, thus output a successful result.





# Failed Example:

For my first failure example, I chose the dog pattern on Phoebe's bag, however, even though there are multiple frames with such similar patterns in the folder, my program did not output those images. From the second and third output, the program most likely interpreted the flowers in the background as the desired region, since the gradient and the colors are similar to the initially selected region, that's probably why the program picked those two as the top output. For the rest of the top-ranked images, I can see here and there where some of the parts yield a similar pattern or texture from the selected region, for example, the largely darker region in the fourth image closely resembles the dark ears of the puppy on the bag, and the colorfulness in the last two images. However, my initially selected region did have a very indistinguishable pattern, therefore explains the failure of the output.

