* Our PCA and our randomized PCA are performing identically in terms of variance in correlation to number of components. It seems this question assumes that one will perform differently in terms of the number of components, probably in terms of randomized PCA needing less components for a higher variance. However, on our dataset, they perform identically (as we can see from the first graph). To investigate further, we plotted a sample for the original image, the image after PCA, and the image after randomized PCA. We can see that after both randomized PCA and normal PCA the image is blurred, as it has lost approximately 10% variance, but the image under randomized PCA looks identical to the image under PCA. We are unsure if this has something to to with an issue with implementation or if our dataset isnt large enough to see a difference on, but either way they are currently performing the same. That being said, based on the difference in time for them to run, we could say that we prefer to use randomized PCA and can assume it would perform much better on larger datasets than PCA in terms of time.
* Hello! Sorry for another email, but my group and I had a question regarding Lab 2. Our PCA and our randomized PCA are performing identically in terms of variance and number of components. It seems that there is a question that assumes that one will perform differently in terms of the number of components, probably in terms of randomized PCA needing less components for a higher variance? However, as far as I can tell ours are performing the same. I explained in our notebook why I believe this is happening, but I’m afraid this isn’t the output that you are expecting. I think one of my teammates may have sent an email already, but I just wanted to double check if this is expected? If not, could I perhaps come to office hours to get some help with our code? We already submitted, but if we did something wrong I would like to fix it! Thank you!