

Running Max/min Filter Exercise [Help]

Help: The following tips will help you complete this exercise:

- The .py files located in the 'Noise_Functions' folder, contain one single function each, that you can use to corrupt an image with noise, by importing them to your .py file. Make sure that they are located in the same directory. You will not run these files.
- Make sure that the algorithm works for both odd and even-sized filters. This can be achieved with a modulo operation.
- When calculating the Max/min for each line, if the current pixel is not greater/less than or equal to the Max/min, check whether the previous $(n + 1)$ -th pixel (n is the result of the filter's size divided by 2) is equal to the Max/min. If it is, set the Max/min as the previous n -th pixel. Then, check if there is another Max/min value on the following n pixels. Apply the same logic when calculating the Max/min for each column.
- To display two images as one, you can use the NumPy.hstack() or NumPy.vstack() functions.
- When displaying the image, if it is entirely white or black, try specifying its data type using the .astype() function.