

CIIC4030: Programming Languages
Assignment #4: Median Filter Simulator

The Client class creates an actor which is called to receive an image. This actor with the received image processes the images inside the MedianFilters object. The it applies the method filterRange to the selected image. The filterRange method creates an array that stores all the pixel values in the image. Then the RGB values of the image are stored in a sorted array. The actors that execute the filter algorithms are called and they save the processed images using the according algorithm. After execution, the parallel filter has a faster execution time at 0.2185382s, while the simple filter came in at 0.3868028s. In conclusion, the parallel algorithm was faster because it removed the noise from the image partially. The simple median filter was slower in terms of execution time but produced a clearer image.