

Introduction to Digital Image Processing

HW2

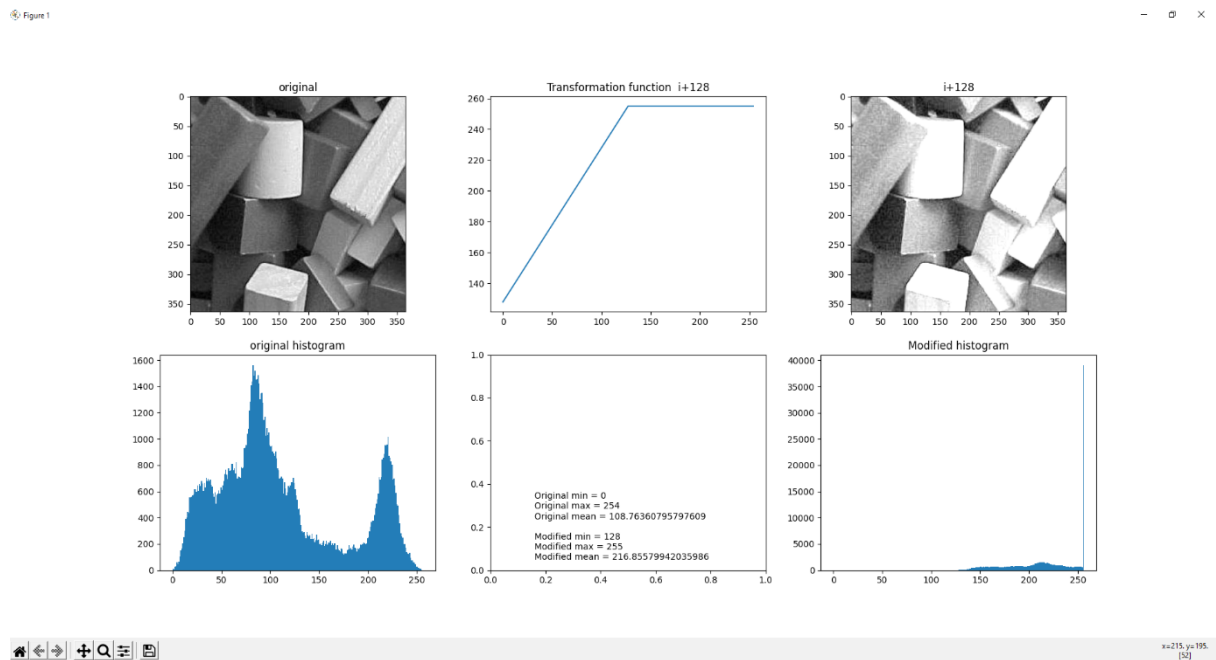
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Development tools : Python 3.9 Library Packages: opencv, matplotlib, numpy

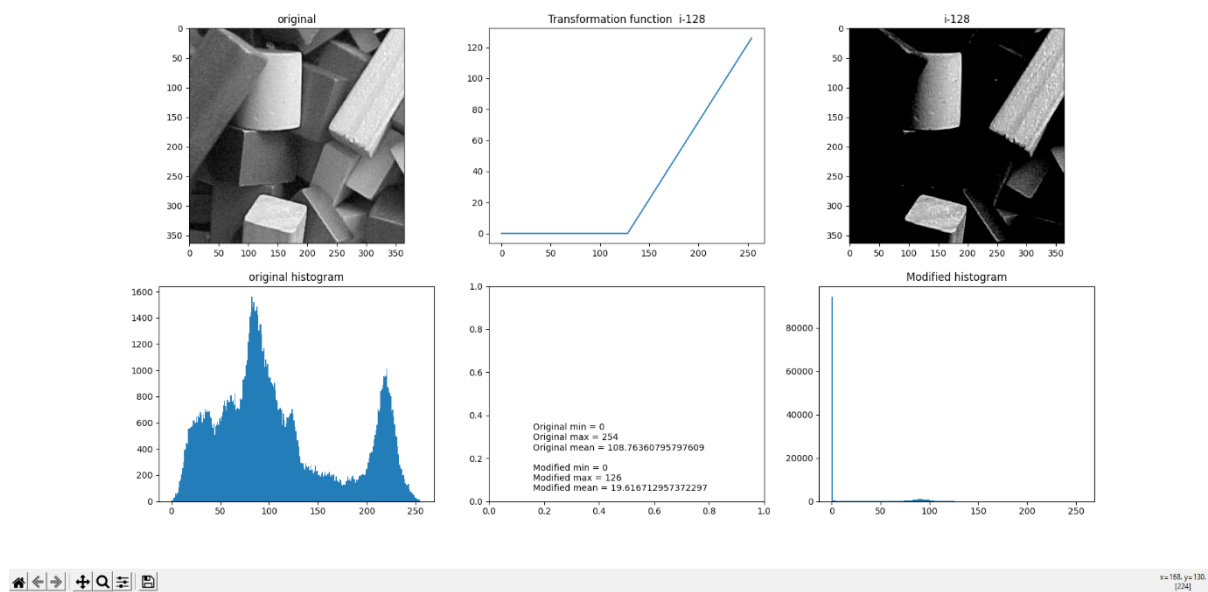
TASK-1

Input-1



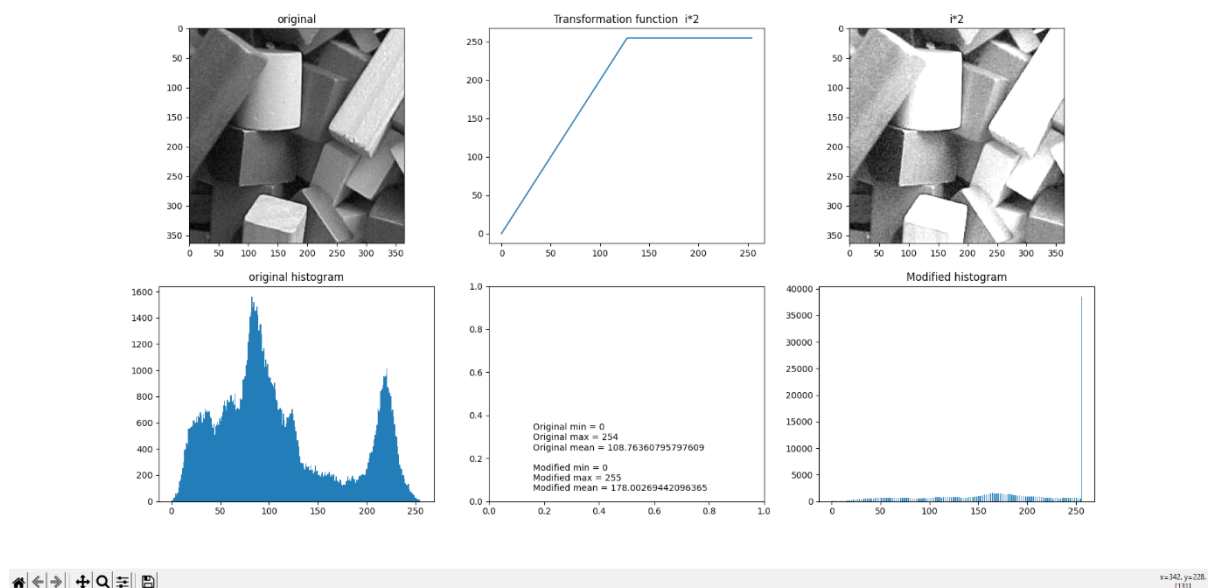
When we add 128 to each pixel of the image, the image of our output opens. All light-colored areas in the input image have become completely white.

Figure 1



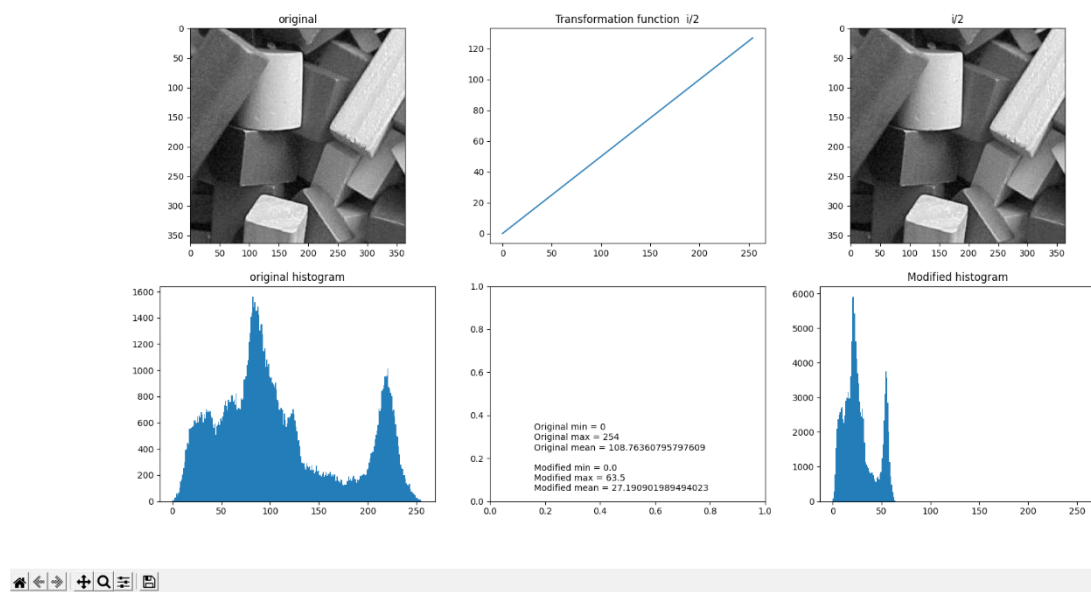
Subtracting 128 to each pixel of the image darkens the image of our output. All dark areas in the input image have become completely black.

Figure 1



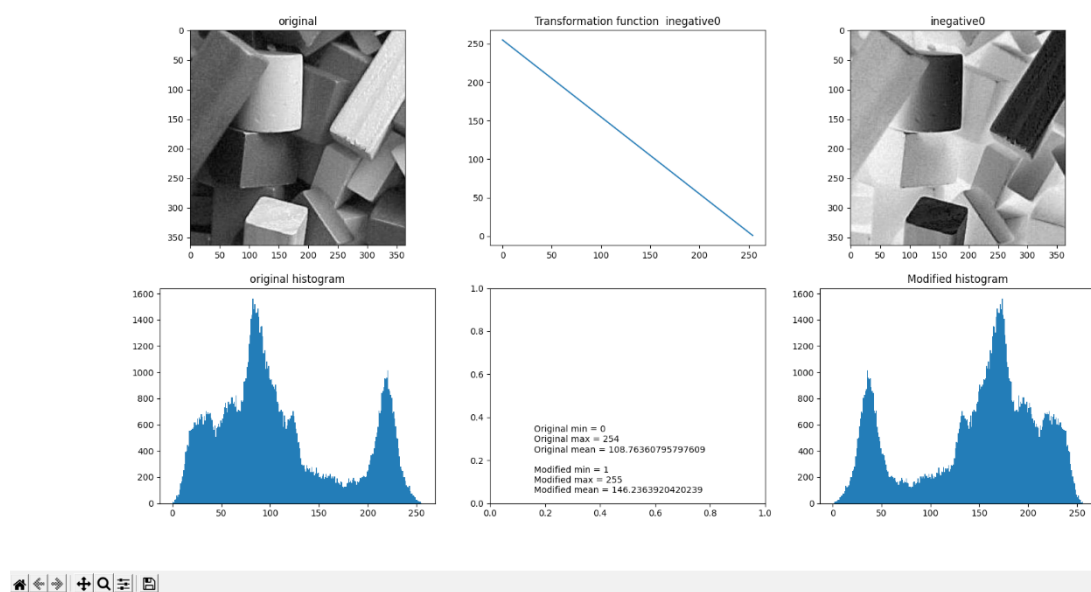
The image of our output turns white when we double every pixel of the image. All light-colored areas in the input image have become completely white.

Figure 1



When we halve each pixel of the image, the image of our output darkens.

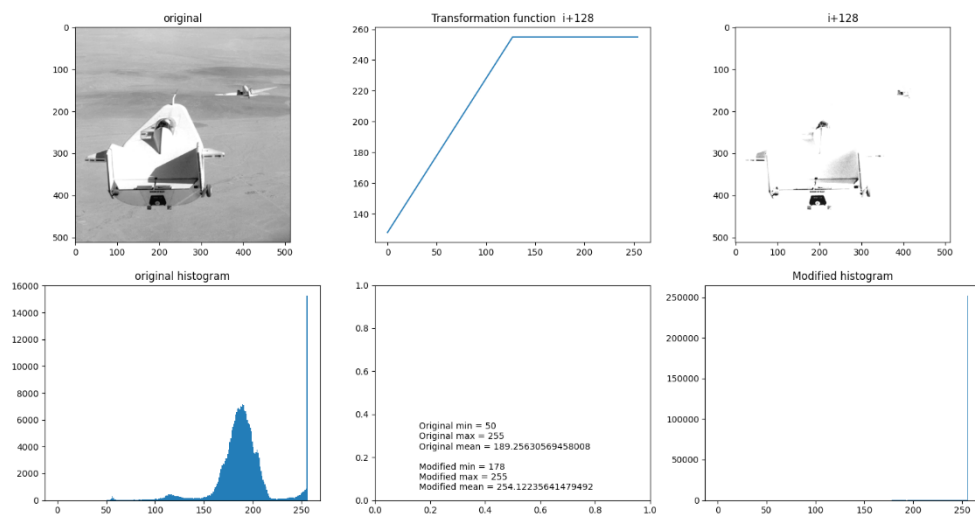
Figure 1



White places turn dark, black places turn white.

Input -2

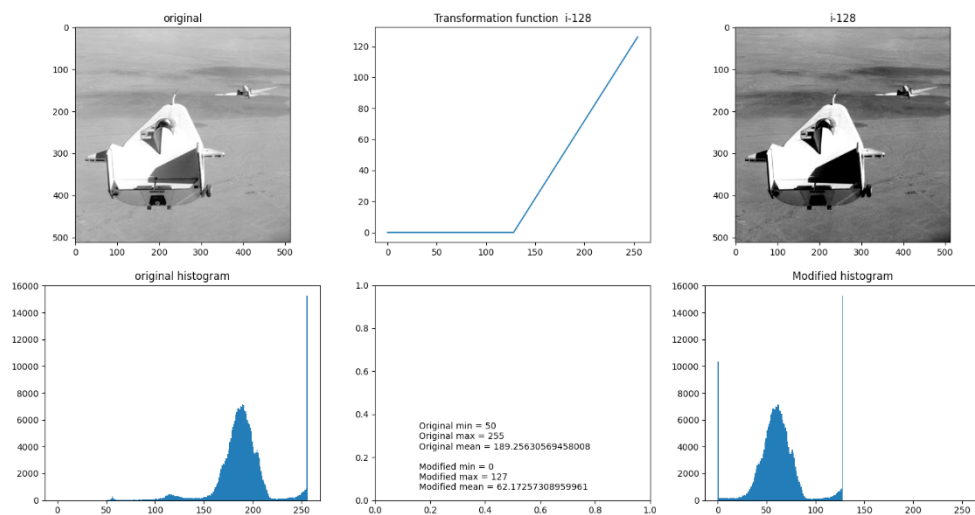
Figure 1



xx=2.5px/196.1

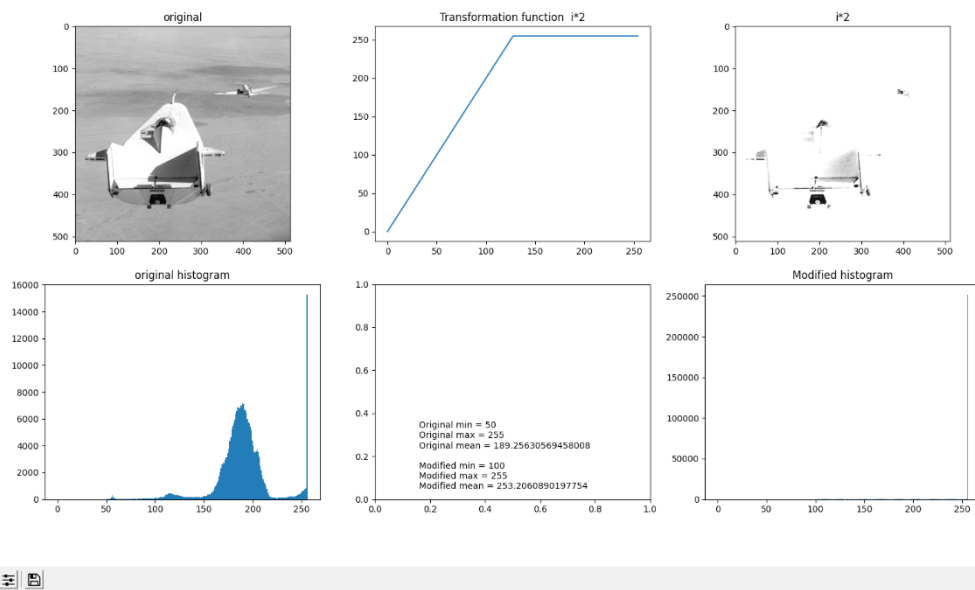
When we add 128 to each pixel of the image, the image of our output opens. All light-colored areas in the input image have become completely white.

Figure 1



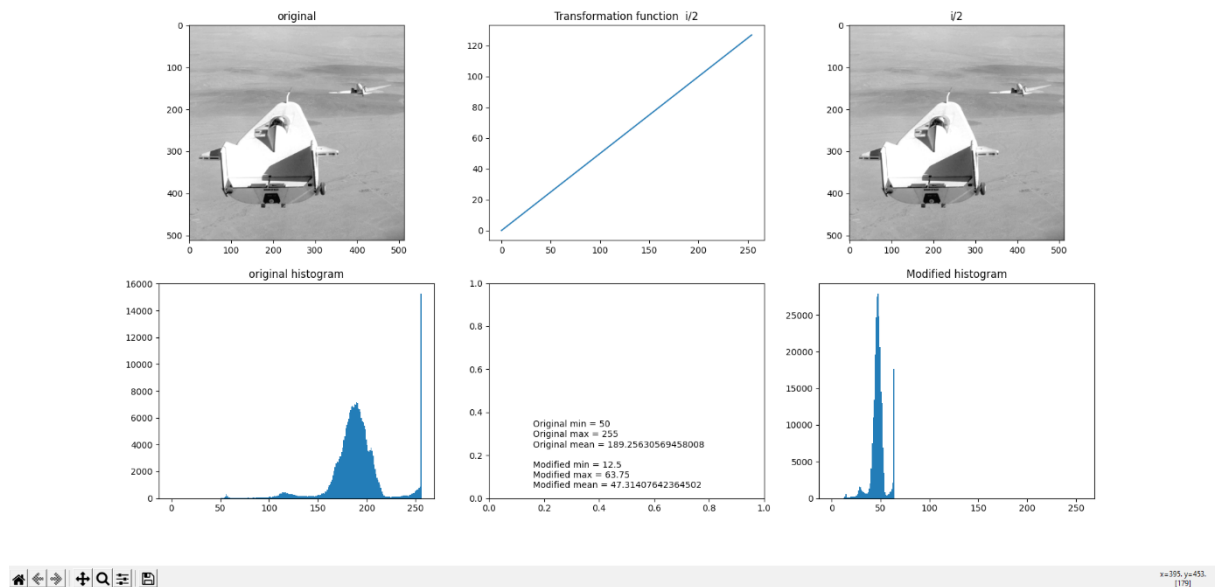
Subtracting 128 to each pixel of the image darkens the image of our output. All dark areas in the input image have become completely black.

Figure 1



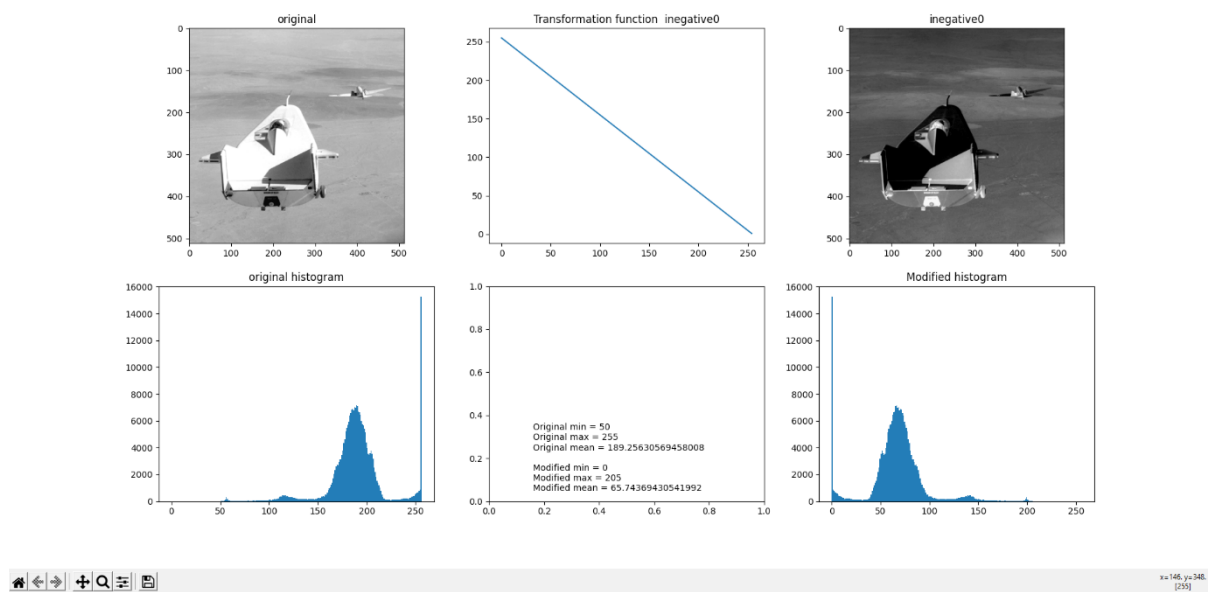
The image of our output turns white when we double every pixel of the image. All light-colored areas in the input image have become completely white.

Figure 1



When we halve each pixel of the image, the image of our output darkens.

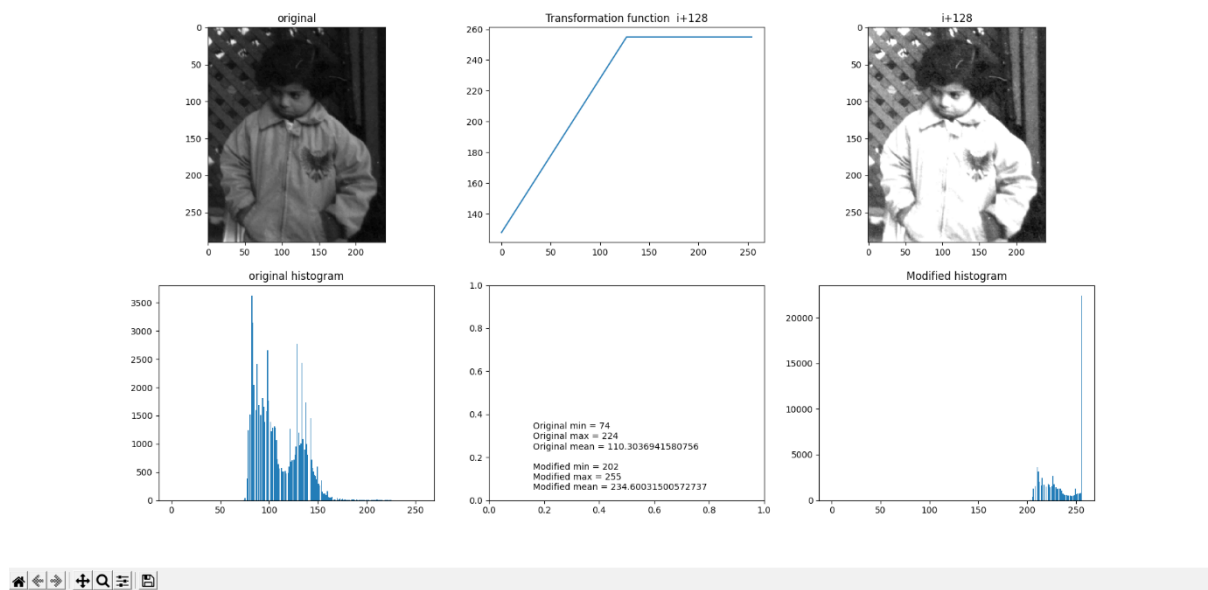
Figure 1



White places turn dark, black places turn white.

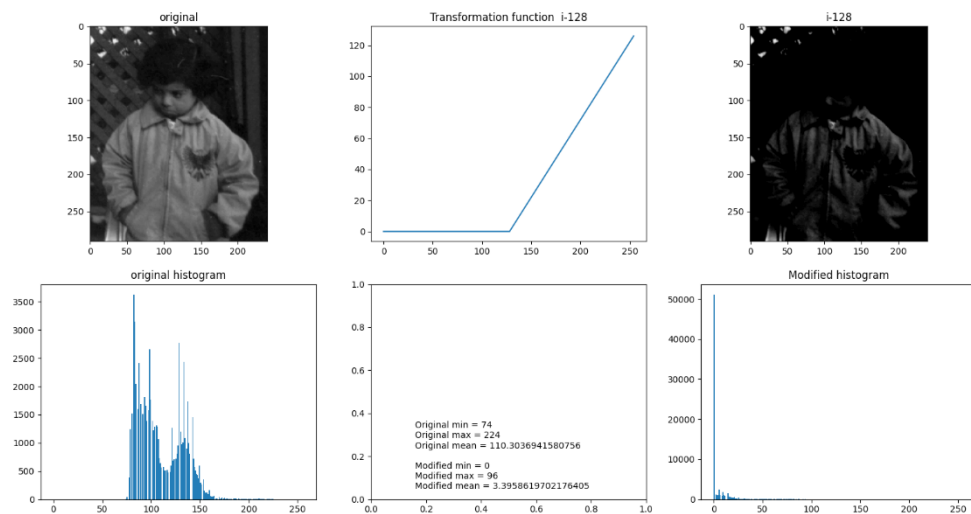
Input-3

Figure 1



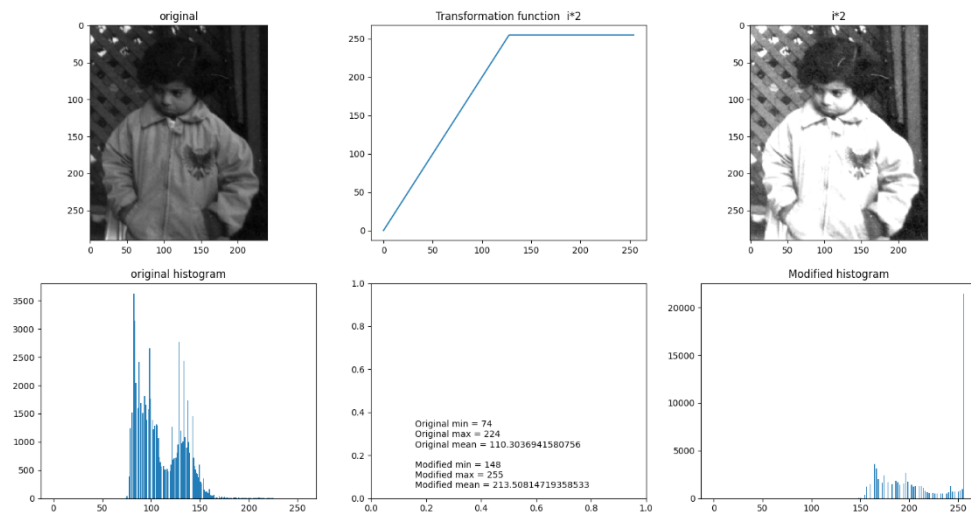
When we add 128 to each pixel of the image, the image of our output opens. All light-colored areas in the input image have become completely white.

Figure 1



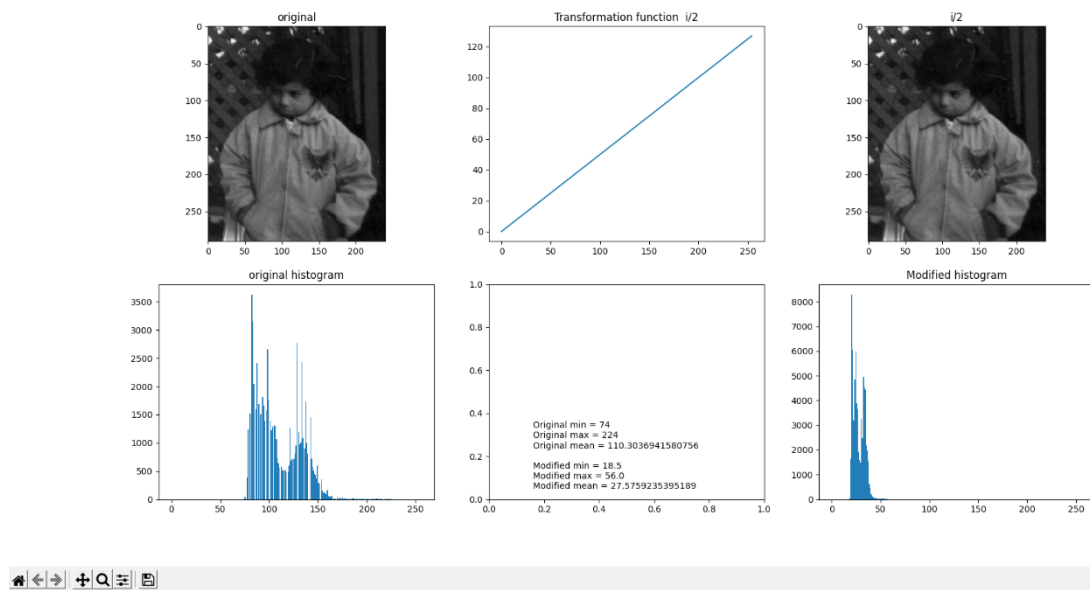
Subtracting 128 to each pixel of the image darkens the image of our output. All dark areas in the input image have become completely black.

Figure 1



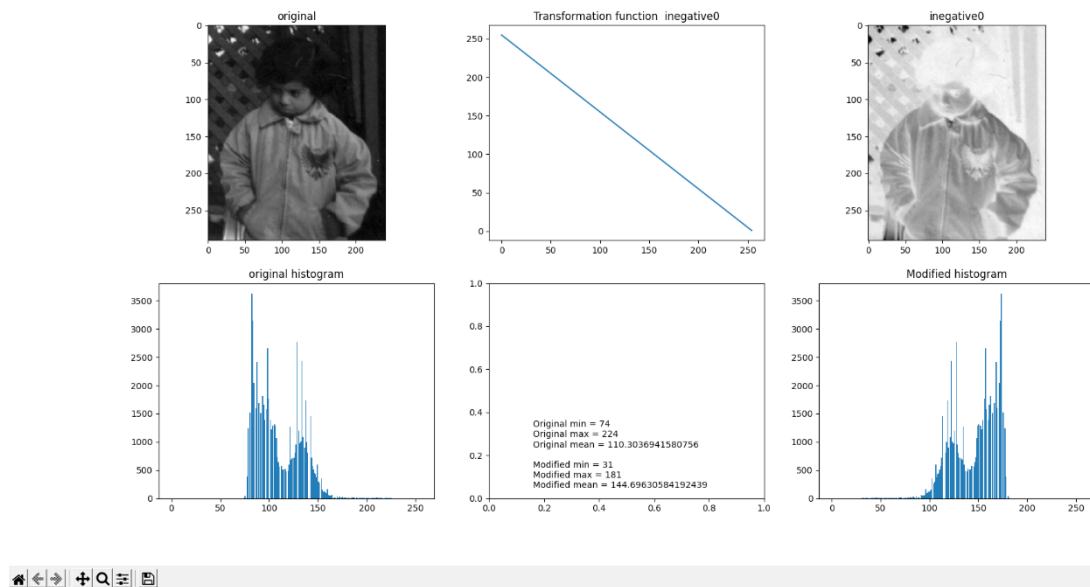
The image of our output turns white when we double every pixel of the image. All light-colored areas in the input image have become completely white.

Figure 1



When we halve each pixel of the image, the image of our output darkens.

Figure 1



White places turn dark, dark places turn white.

TASK-2

The photo we chose was 32. Our Sentinel value was %. We found the secret message according to strategy 0 .

Hidden Message:

There are three stages in scientific discovery. First, people deny that it is true, then they deny that it is important; finally, they credit the wrong person.

Conclusions

We learned different libraries. We have gained the ability to see the picture analytically.