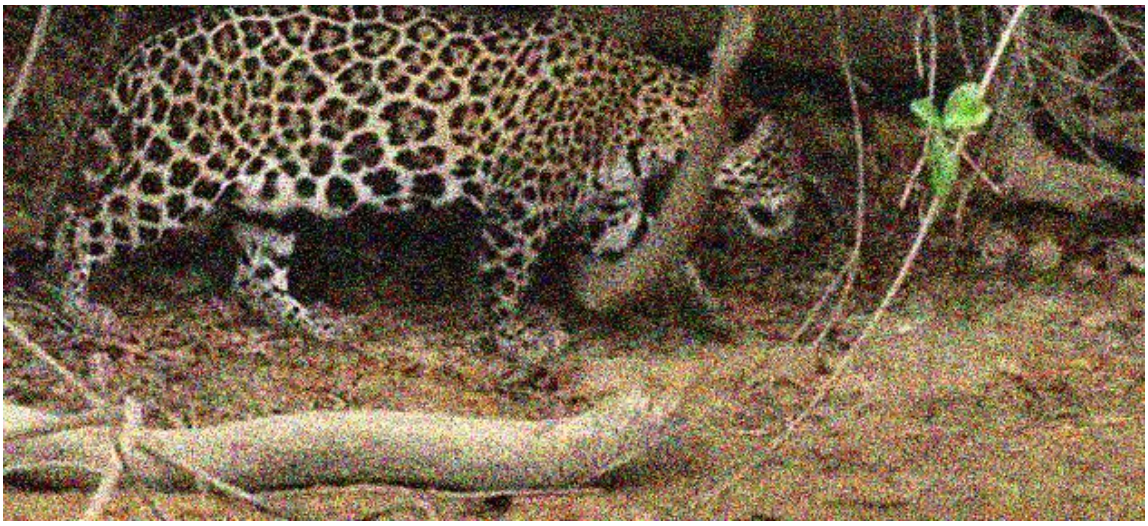
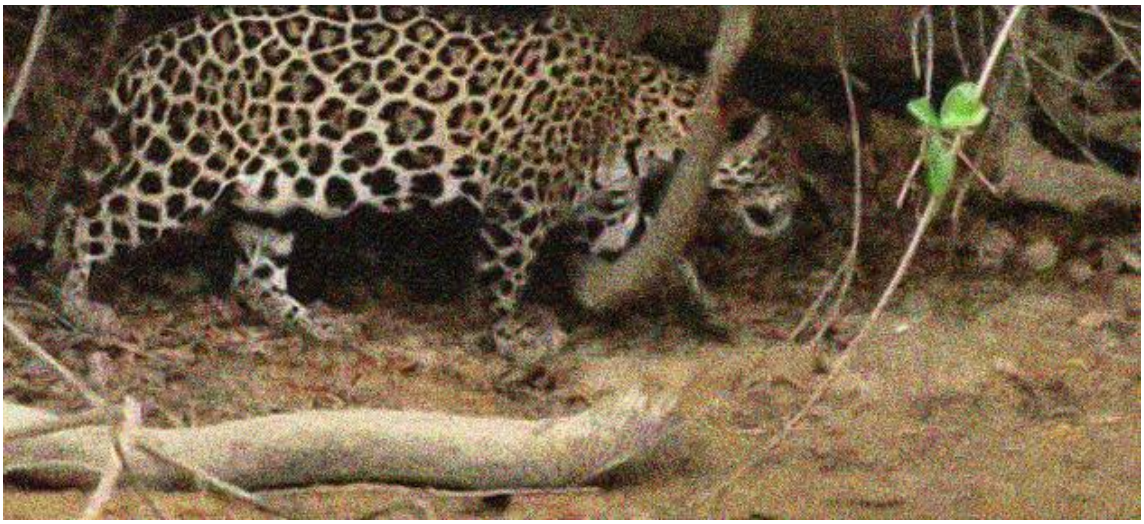
Test for k value :

Observation: as k goes up, the quality of the nlm result is improved

It is intuitive because higher k gives us more nearest neighbors.



K = 3 p=7 w = 630 iter = 4



K = 6 p =7 w = 630 iter = 4

K = 8 p = 7 w = 630 iter = 4

Test for w value:

I tested when w = 200, 630, 1000, they don’t vary much , gave me similar noise level. I think as long as w is large enough that give the enough range for the random search, the result would not vary too much.

W = 200

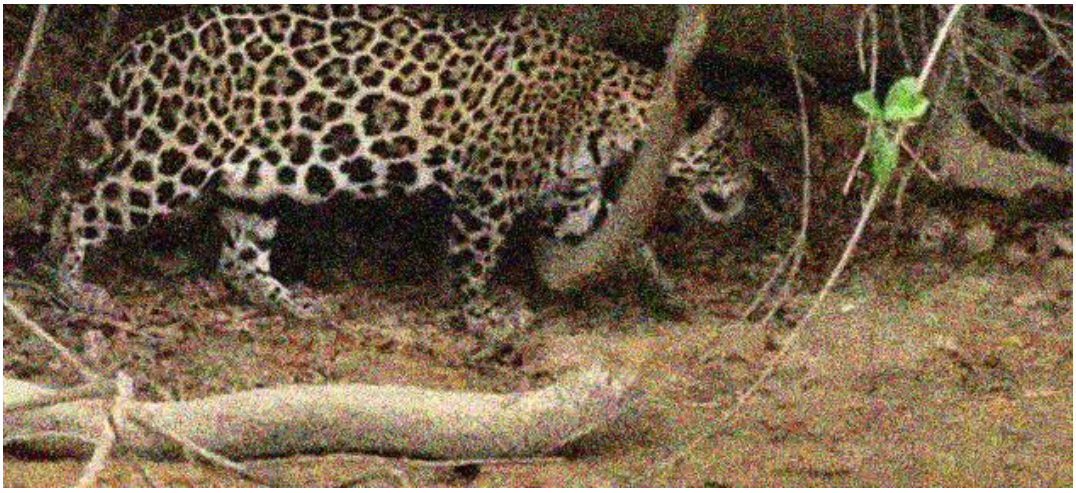
W = 630

W = 1000

Test for patch size:

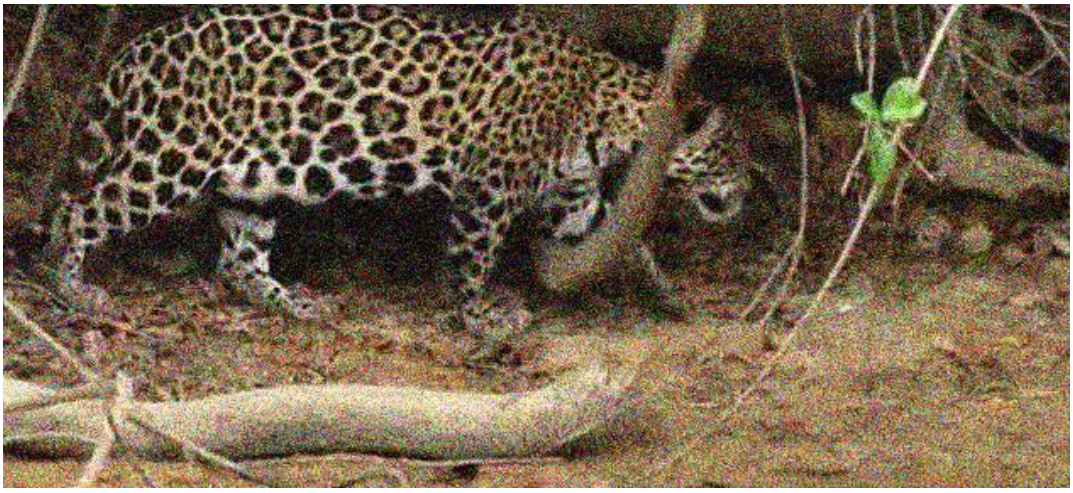
I observe that result when p = 3 and p = 11 has little bit more noise than the result got from p = 7

So we need proper p size, too large or too small will lead to bad result .



P = 3 k= 3 w = 630

P = 7 k= 3 w = 630



P = 11 k= 3 w = 630

The result for generalized patch-match on source.png and target.png

Order 0

Order 1

Order 2

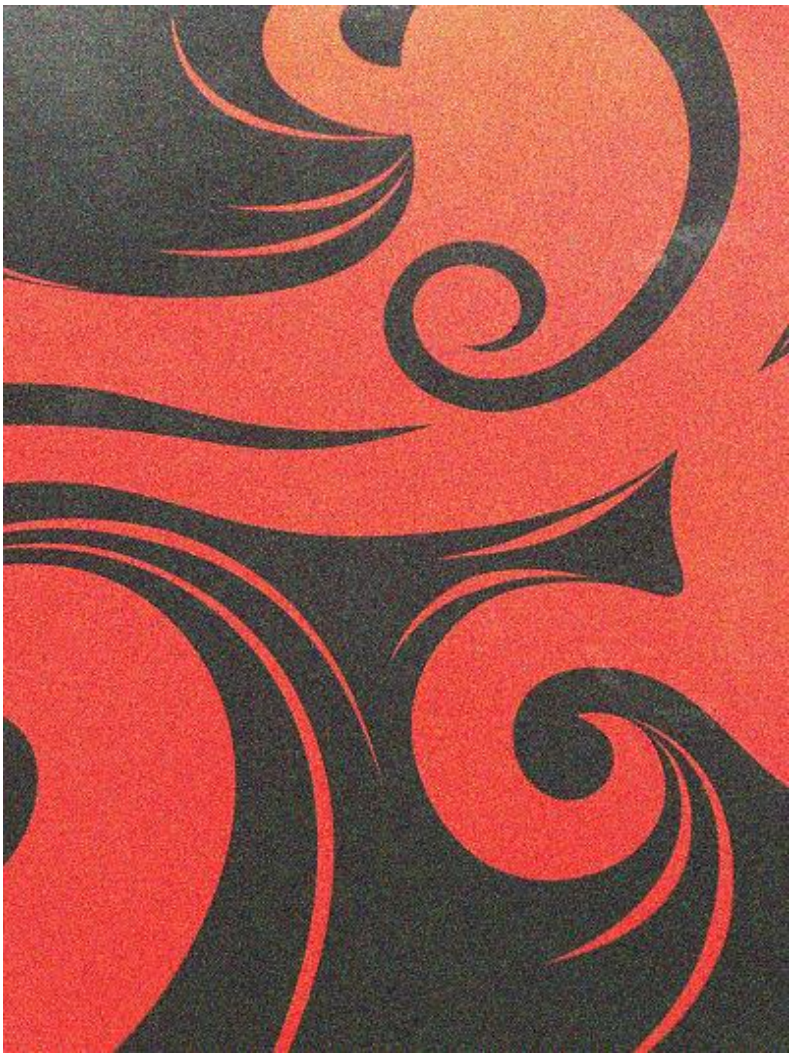
Test result for my own experiments

Pair1 :

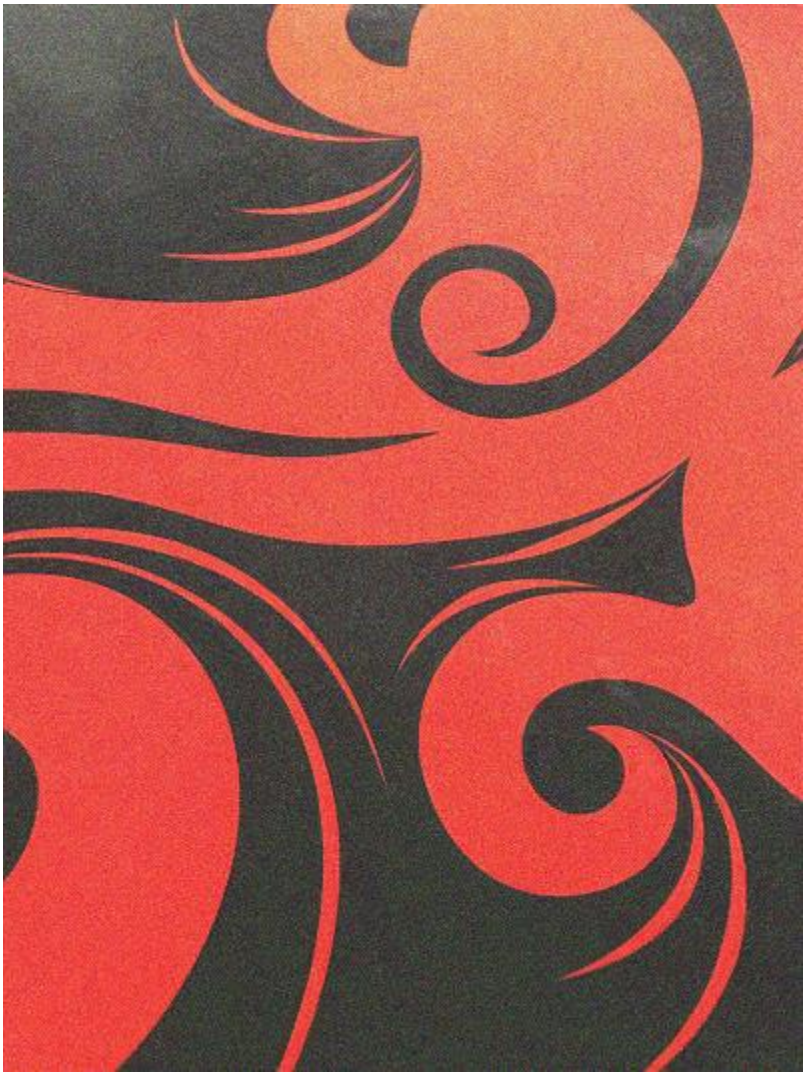
Source picture with noise

Result image

Pair2:



Source picture with noise



Result image

We can see that the noise in above two source images are properly reduced in the result image. So this algorithm works fine on above images.