StealthAg Meteor Challenge Part 1 - Daniel Fernandes Pinho

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1 Explanation of the Code

The problem was developed using a Python programming language and the PIL library. Initially, one idea was to look for pixels that represent water, in then store each position referring to the X (horizontal) axis of that pixel in a list. After that, again the image is traversed analyzing pixel by pixel a existence of stars and meteors. Where the star has the white pixel RGB (255,255,255) and the meteor the red color pixel RGB (255, 0, 0).

One counter variable is assigned to the star count, another to the star count meteors and another to meteors that will fall into the water. Regarding the meteors that will fall into the water, the list that contains the position of the X axis identifies the existence of water, is checked for each meteor, if the X axis value of the analyzed meteor exists in this list, then the meteor will fall into the water, then the variable referring to the meteors that will fall into the water is increased.

Finally, the counter variables that store the number of stars, the number of meteors and the number of meteors that will fall into the water are required.

Regarding the secret message, perform several of the tests, but unfortunately I was not successful, I will keep trying.

Note: To accomplish this challenge, several tests were carried out to verify thepixels, where the cores were changed and some filters were added.

2 Results and Output

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RESULTS OF DIGITAL IMAGE PROCESSING:
Stars in the image: 315
Meteors in the image: 328
Meteors falling in water in the image: 105
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Figure 1: Output for the code