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Professor Broom

CS 100

Image Filter Final Project

* Negative Filter
  + The negative filter flips the color of an image, changing the positive colors to negative. This creates an inverse image of what has been taken. This only allows the negative information to be seen.
  + To achieve this filter, an image must first be provided. Once an image is provided the width and height of the image will likewise be required to allow for proper calculations to be made. After the width and height are received, each pixel of the image must be put into an array which will later be used to change the value of each pixel. Once this array is setup, two for loops, one nested inside of the other, will be used to change each pixel. Based upon the width and height provided by the image, the for loops will cycle through each pixel flipping the hexadecimal value to negative.
* Darker Filter
  + The darker filter removes saturation from an image, thus darkening how the image looks. This is done by removing a specified percentage of saturation from each pixel.
  + Similarly, to the negative filter, an image must first be provided. Once an image is provided the width and height of the image along with the percentage of darkness a under would like will likewise be required to allow for proper calculations to be made. After the width and height are received, each pixel of the image must be put into an array which will later be used to change the value of each pixel. Once this array is setup, two for loops, one nested inside of the other, will be used to change each pixel. Based upon the width and height provided by the image, the for loops will cycle through each pixel, obtaining the RGB values for each pixel and reducing them by a user defined percentage to darken the image.