CSC 340 Assignment 1 - Image Rotation
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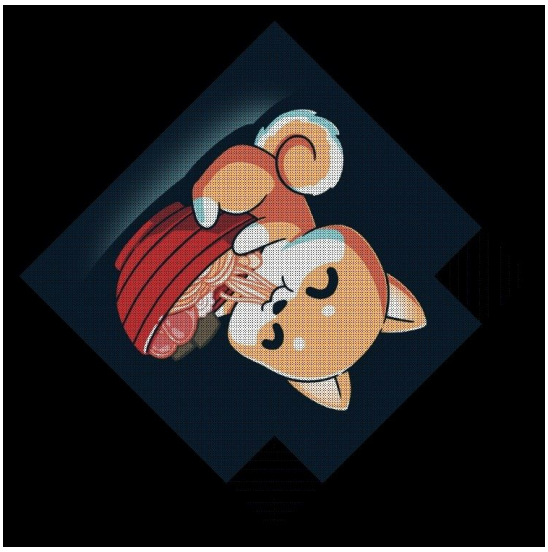
Original image



Rotated 135 degrees
45 degree rotations
3 rotations total

I have no clue why it is cutting off the corners

I don't think it is cutting them off but it is doing something weird with the colors

Rotated 180 degrees
60 degree rotations
3 rotations

Image is pretty much the same as the original image but has a few lines on it

Rotated 240 degrees
120 degree rotations
2 rotations

Image is in good shape but the colors are a little off

Angle step size	# rotations	Absolute color error	Pixel rounding error	(#rotations) * (pixel displacement)
45 degrees	8	2.25	0.828	6.624
60 degrees	6	0.39	0.845	5.07
90 degrees	4	0.0	0.066	0.26
120 degrees	3	0.39	0.845	2.535
180 degrees	2	0.00	0.276	0.552
360 degrees	1	0.00	0.526	0.526

Conclusions drawn from this chart

- Anything multiplied by 90 degrees will have the least amount of color error
- The degrees between 90 degrees will have a much higher amount of color error
- There is multiple places where the values are rounded throughout my program so regardless which degree you choose you will get a rounding error
- The higher degrees with less rotations will have less rounding errors

Discussion of any errors encountered

- When I was using sine and cosine it was using radians instead of degrees. In any practical use of sine and cosine I have ever seen in my life … people use degrees. This was incredibly annoying and wasted a lot of my time.
- For some reason it cuts off a corner of my image when I'm doing a 45 degrees rotation. I'm not sure why it does this. It isn't actually cutting off the pixels and filling it in with a black border but it isn't transferring the colors correctly for some reason. It is probably because of rounding errors because most of the rotations work correctly.