

Dr. Swati Jain
Digital Image Processing
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Core Image Filters

iOS mobile app

Filters used :

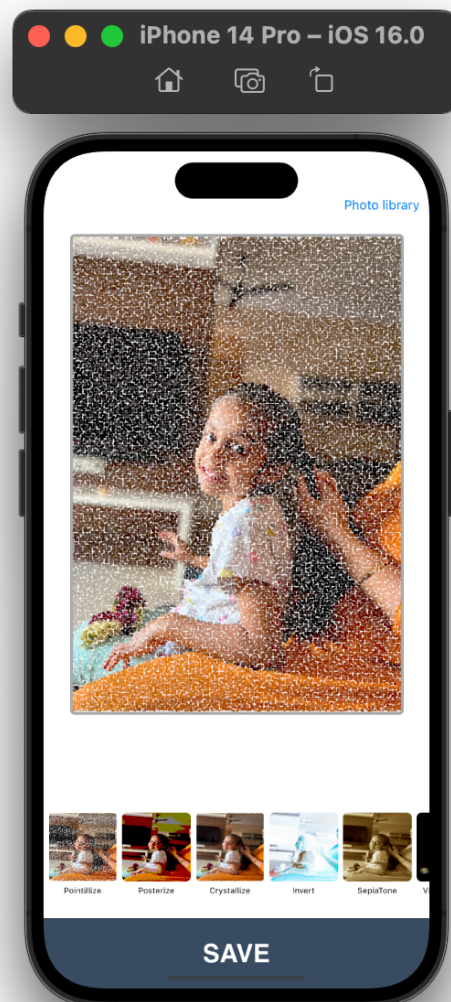
Original Image :



1. Pointillize

Mouse horizontal location controls size of dots. Creates a simple pointillist effect using ellipses colored according to pixels in an image.

Code [Source](#)

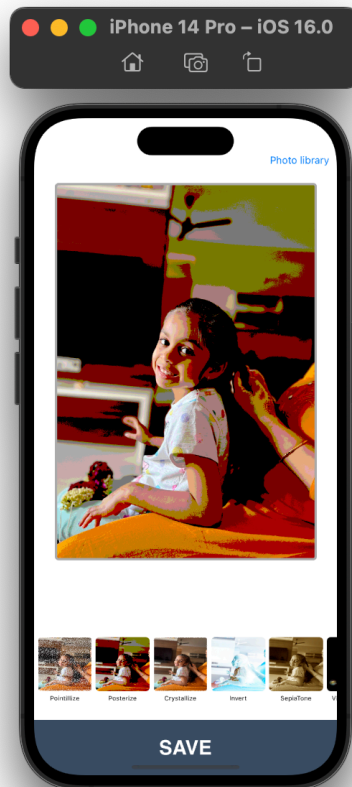


2. Posterize :

Reduce the number of bits for each color channel. In every change of bit change of colour contraction will be seen.

Limits each channel of the image to the number of colors specified as the parameter. The parameter can be set to values between 2 and 255, but results are most noticeable in the lower ranges (for UIImage)

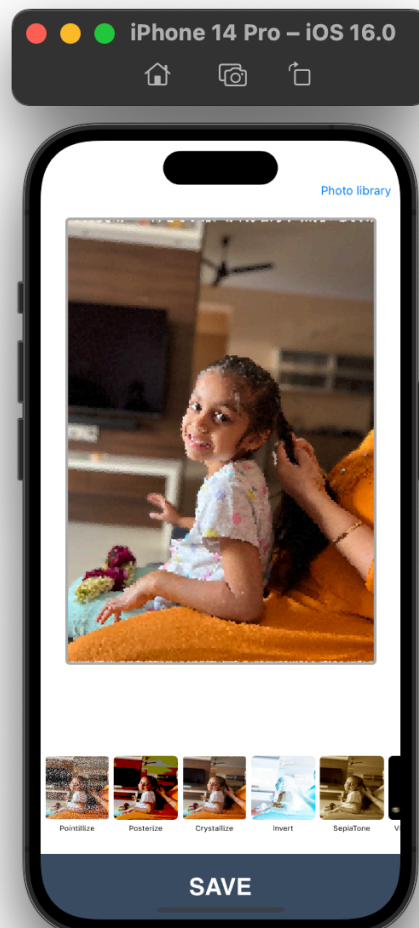
Code [Source](#), [Source2](#)



3. Crystallise :

Simulates the effect of viewing an image through a pane of glass with irregular facets patterned into it.

Code [Source](#)



4. Invert :

Sets each pixel to its inverse value.

Code [Source](#)

5. Sepia Tone

Maps the colors of an image to various shades of brown

Code [Source](#)

6. Vignette filter

The Vignette filter is generally used to focus viewer attention on certain parts of the image without hiding other parts completely. Generally focused part has higher brightness and saturation and brightness and saturation decrease as we go radially out from center to periphery.

Code [Source](#)

7. Twirl Distortion

The Twirl filter rotates an image or selection more sharply in the center than at the edges. Specifying an angle produces a twirl pattern. You can drag the slider to the right into positive values to twirl the image clockwise.

Code [Source](#)

8. Gaussian Blur

Executes a Gaussian blur with the level parameter specifying the extent of the blurring. If no parameter is used, the blur is equivalent to Gaussian blur of radius 1. Larger values increase the blur.

Code [Source](#)

9. Motion blur

Motion blur is a specific type of blur used to lend a directed blur effect to images. Applying motion blur to an image boils down to convolving a filter across the image.

Code [Source](#)

Technology Used : SwiftUI

Tool Used : Xcode

Steps to run the app :

1. Connect any simulator or iOS device to Mac.
2. Open the .workspace file in Xcode
3. Run the Project

Screenshot :

