

**\*\* USE ME FILE \*\***

### **\*GUI Usage Instructions\***

To perform image manipulations via the GUI:

#### **\*Open the GUI\***

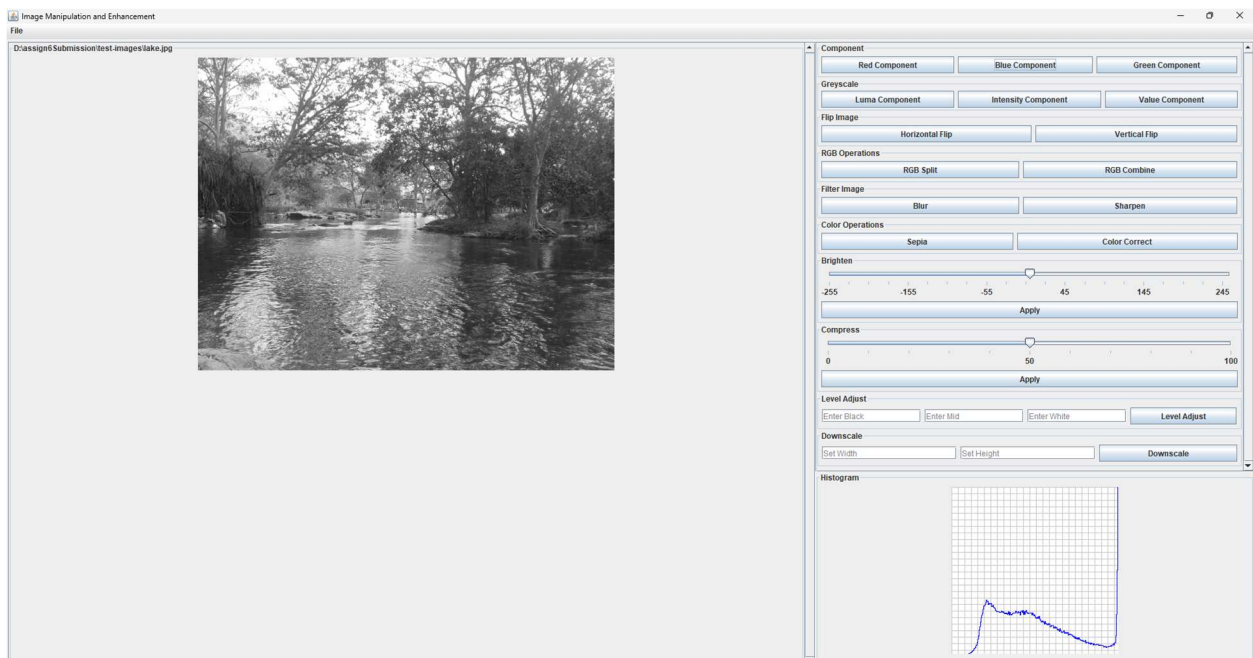
Launch the GUI by running the application. The main window will appear, allowing you to interact with the image manipulation features.

#### **\*Load an Image\***

Navigate to File -> Open and select an image from your file system to load into the application.

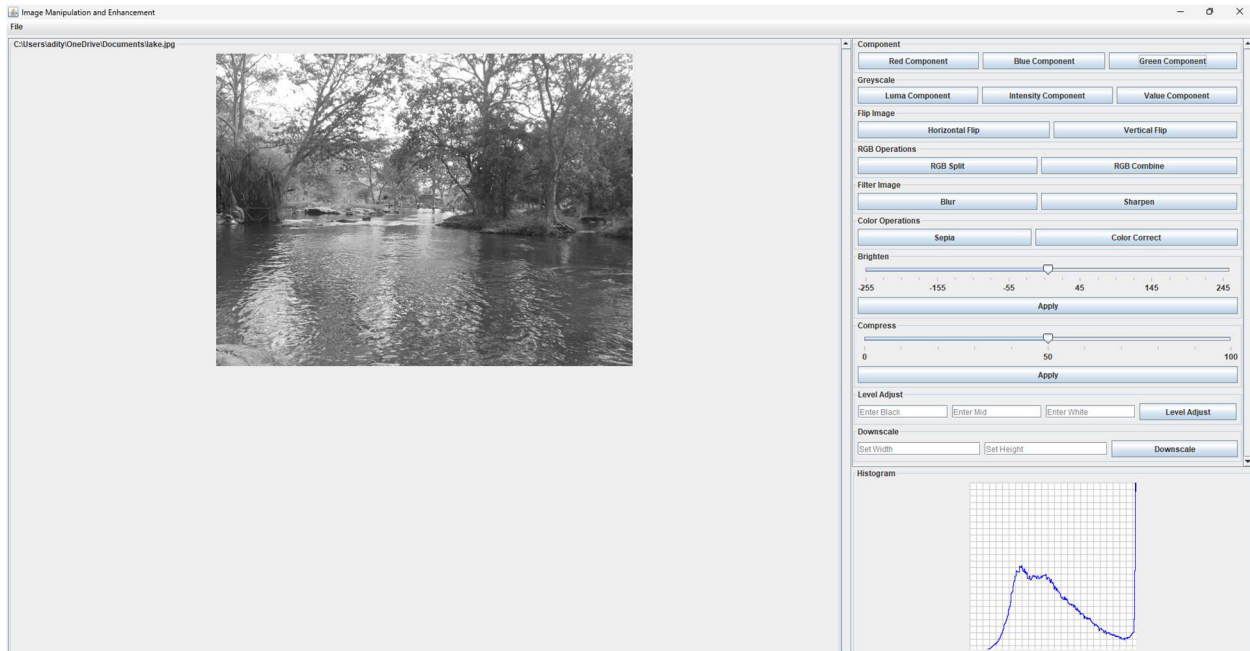
#### **\*Blue Component\***

Click the "Blue Component" button to extract the blue component of the image.



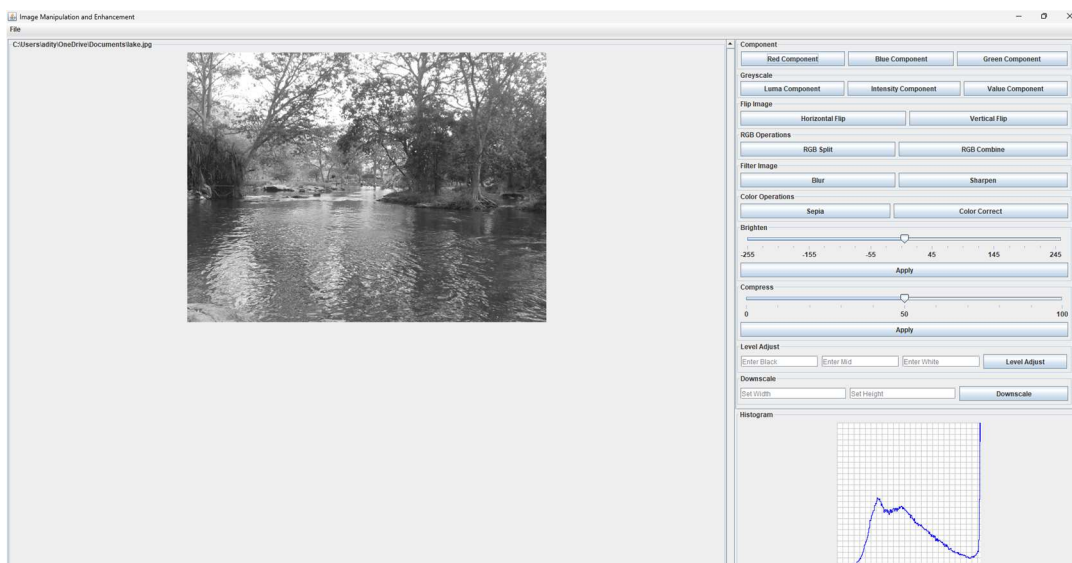
### \*Green Component\*

Click the "Green Component" button to extract the green component of the image.



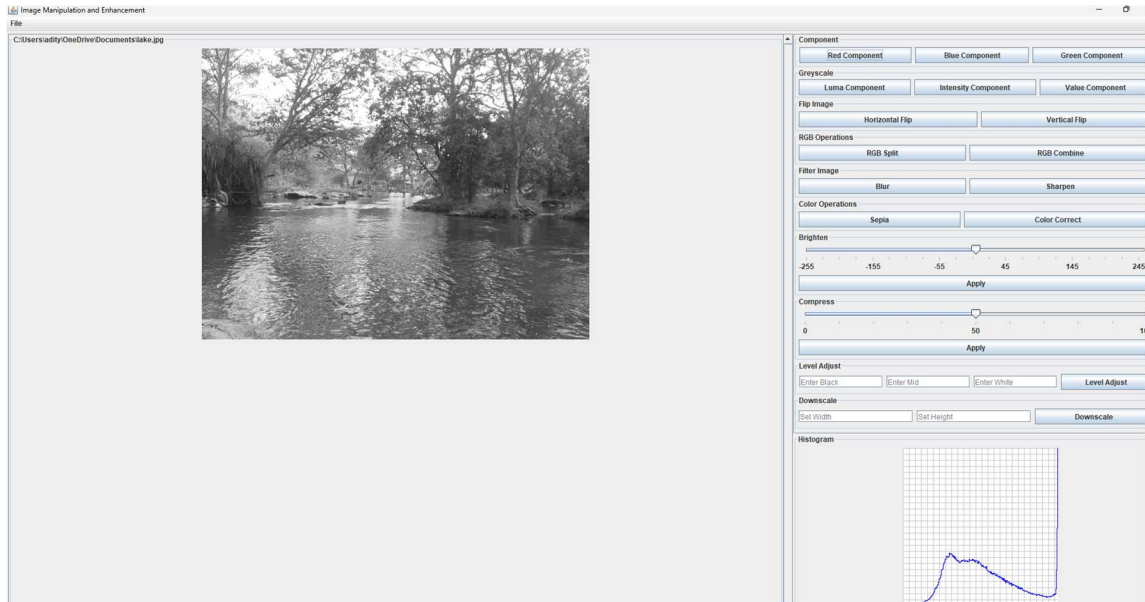
### \*Red Component\*

Click the "Red Component" button to extract the red component of the image.



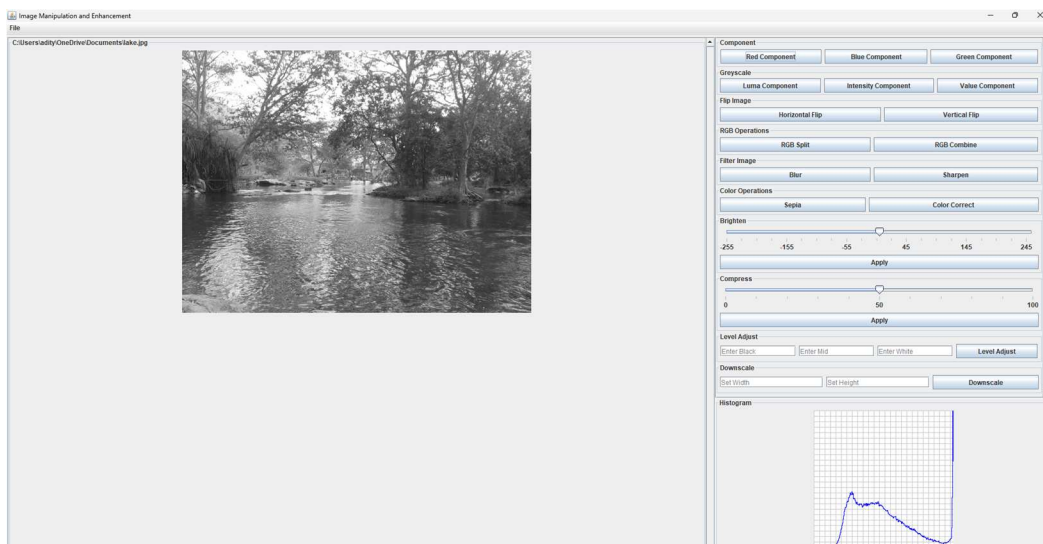
### \*Value Component\*

Click the "Value Component" button to extract the value component of the image. Enter desired split percentage for split preview and click apply.



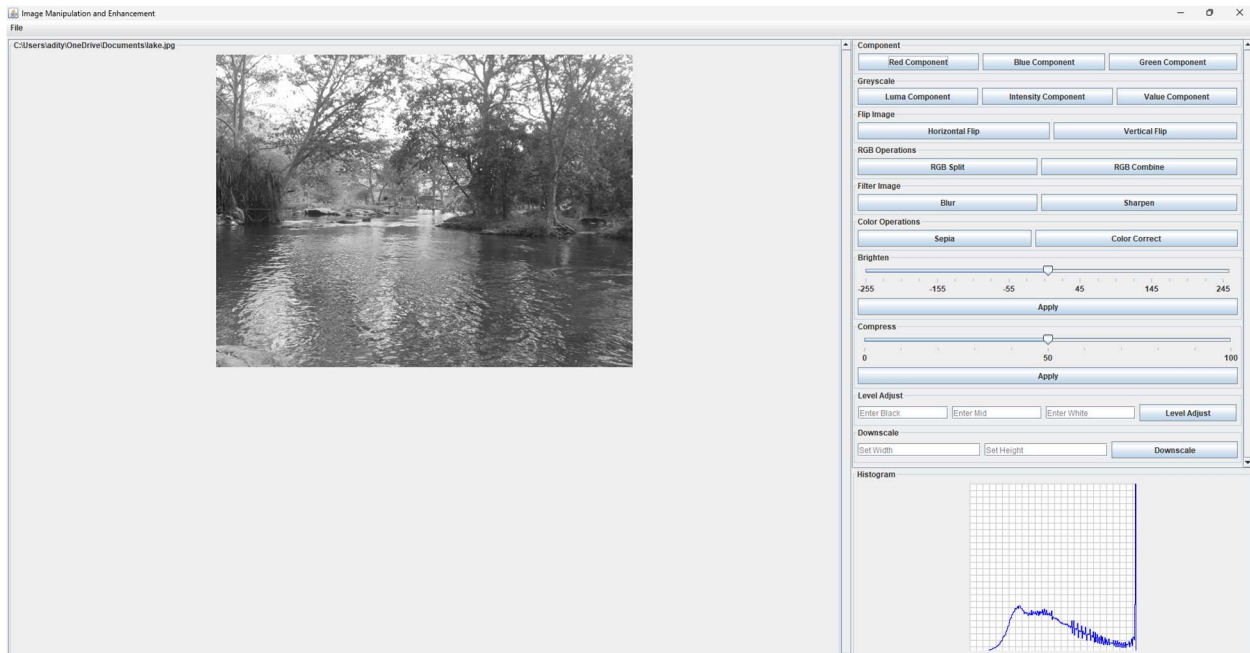
### \*Intensity Component\*

Click the "Intensity Component" button to extract the intensity component of the image. Enter desired split percentage for split preview and click apply.



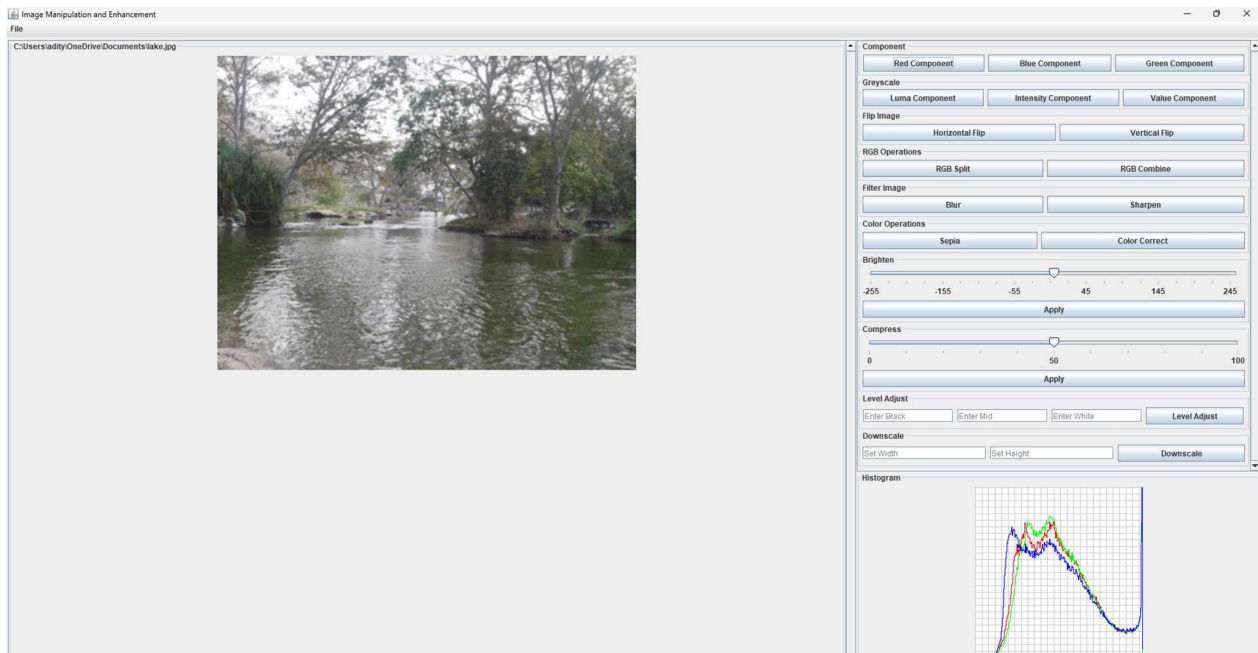
### \*Luma Component\*

Click the "Luma Component" button to extract the luma component of the image. Enter desired split percentage for split preview and click apply.



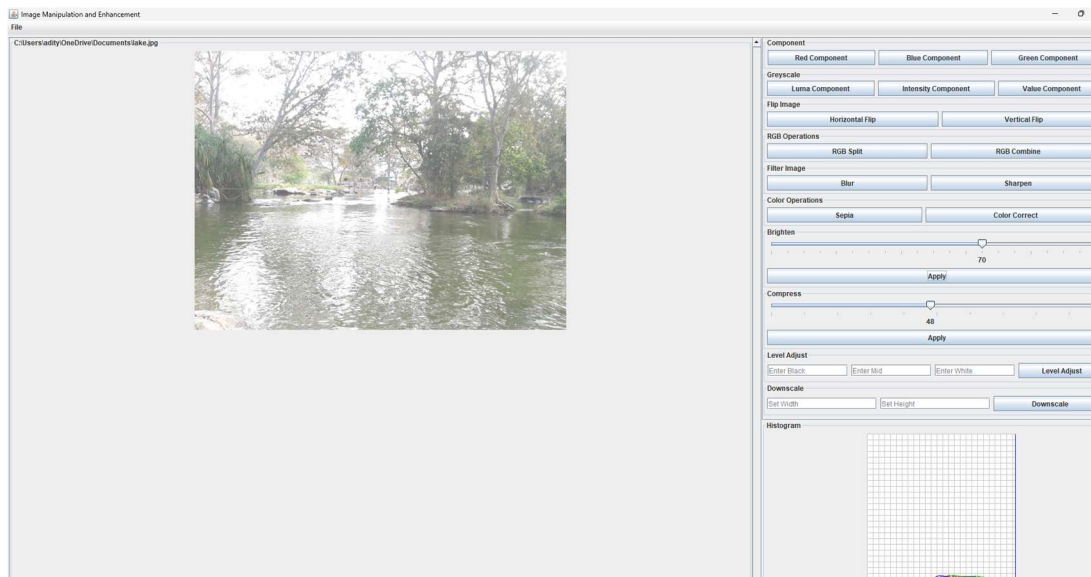
### \*Blur\*

Use the "Blur" button to blur the image. Enter desired split percentage for split preview and click apply.



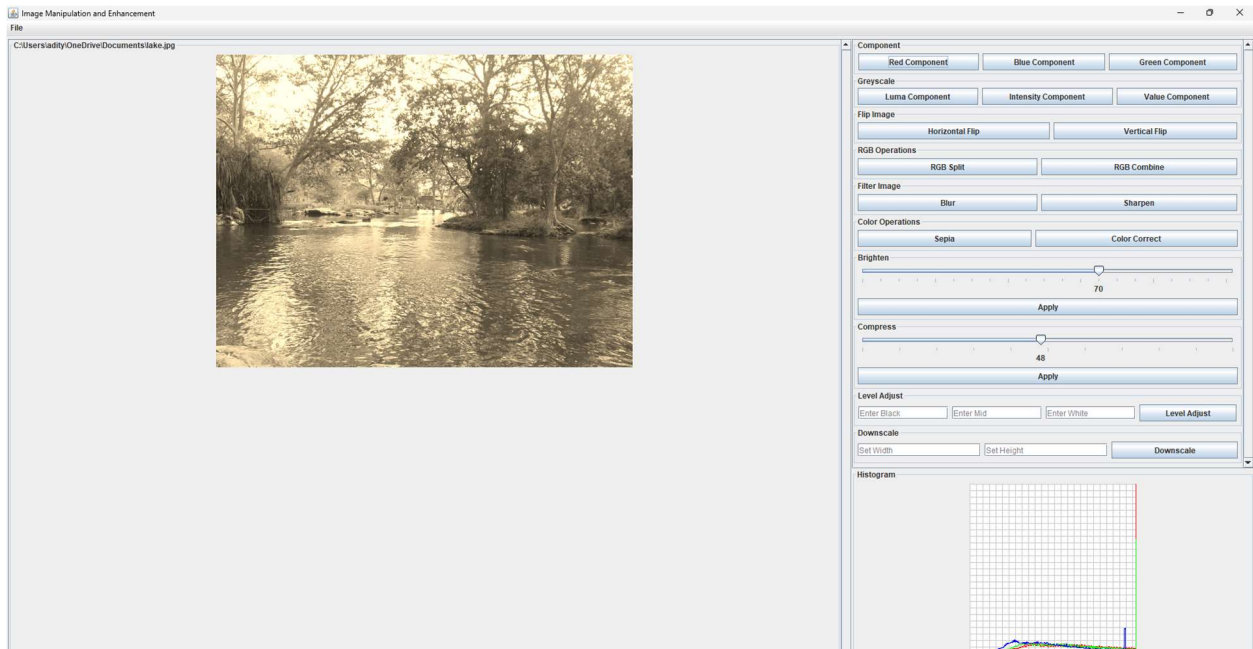
### \*Brighten\*

Use the "Brighten" slider to increase the brightness of the image by desired amount. Click Apply to view modification.



**\*Sepia\***

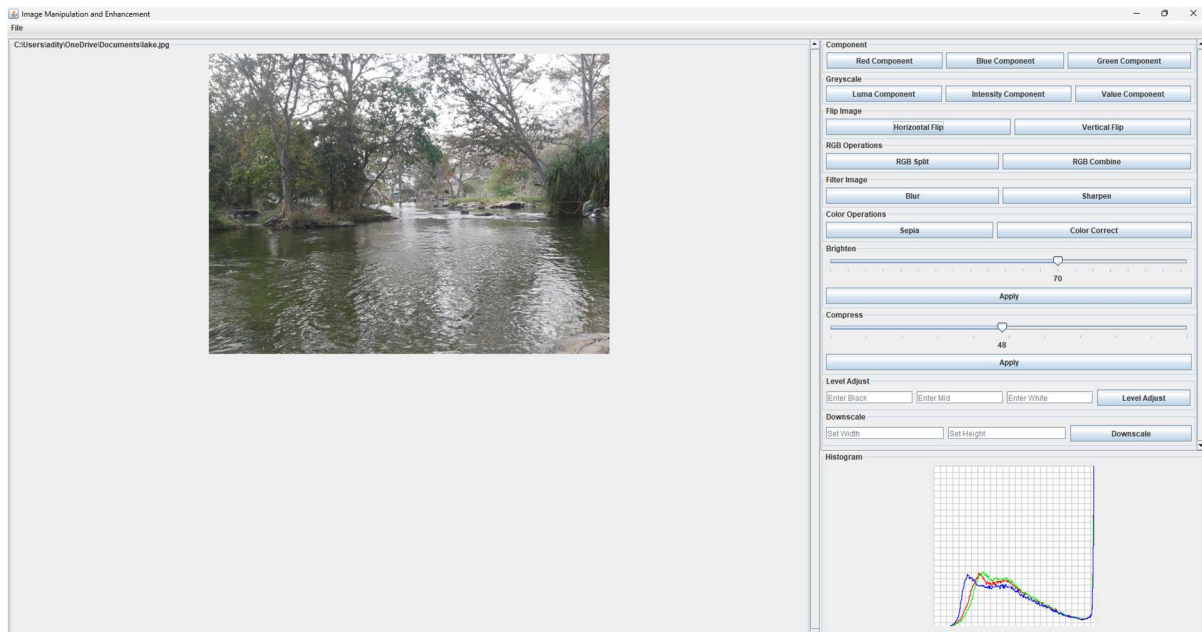
Click the "Sepia" button to apply a sepia tone to the image. Enter desired split percentage for split preview and click apply.





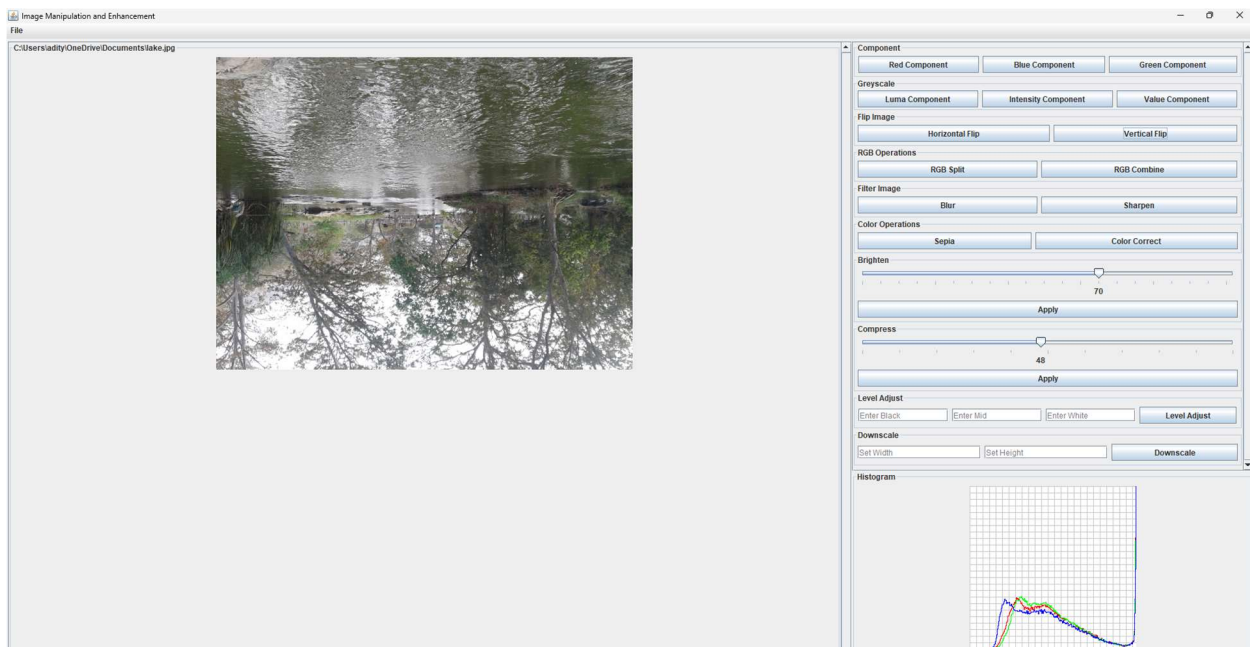
### \*Horizontal Flip\*

Use the "Horizontal Flip" button to flip the image horizontally.



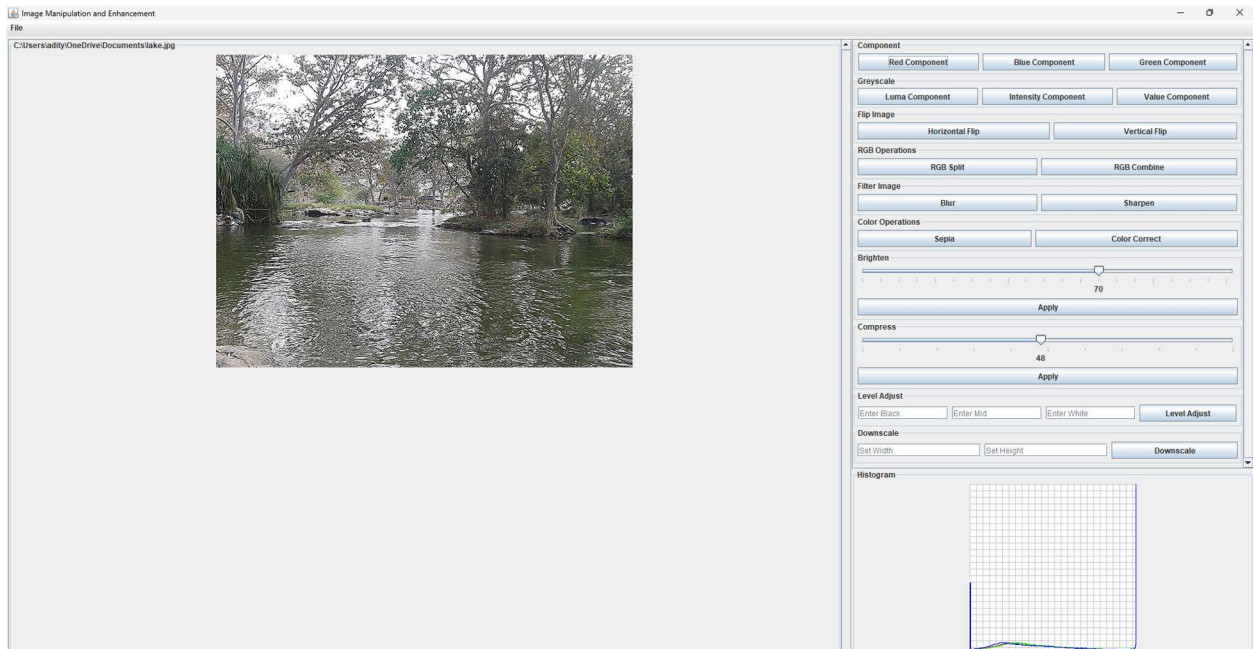
### \*Vertical Flip\*

Use the "Vertical Flip" button to flip the image vertically.



### \*Sharpen\*

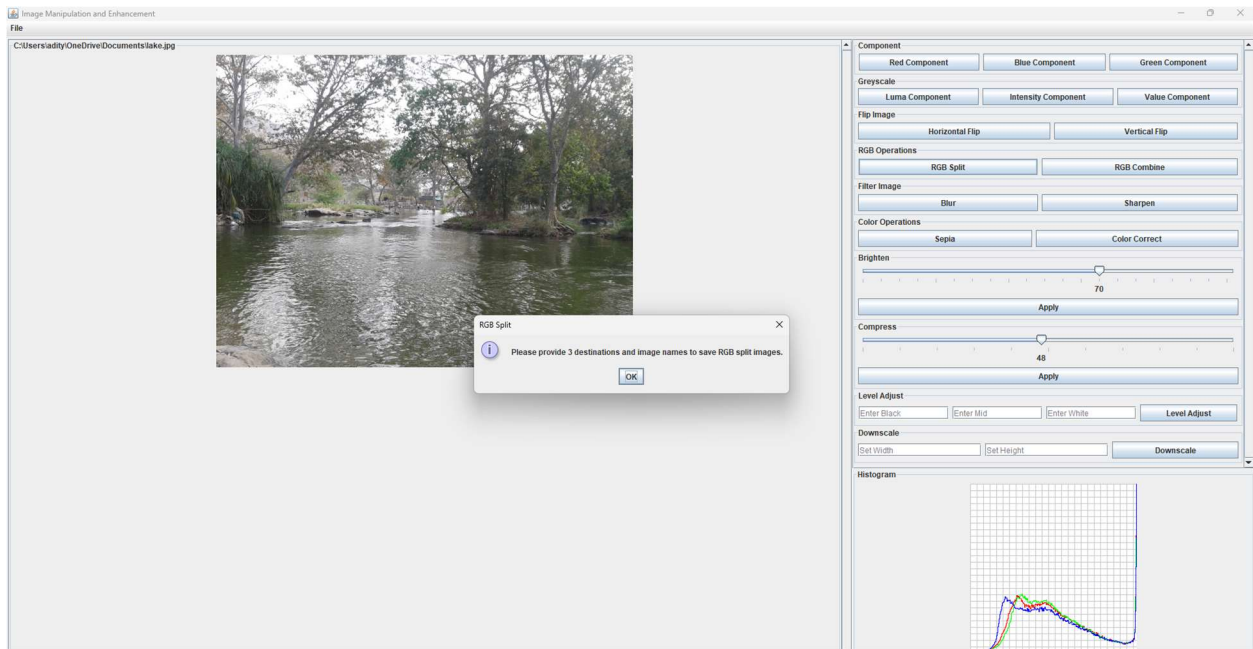
Click the "Sharpen" button to sharpen the image. Enter desired split percentage for split preview and click apply.





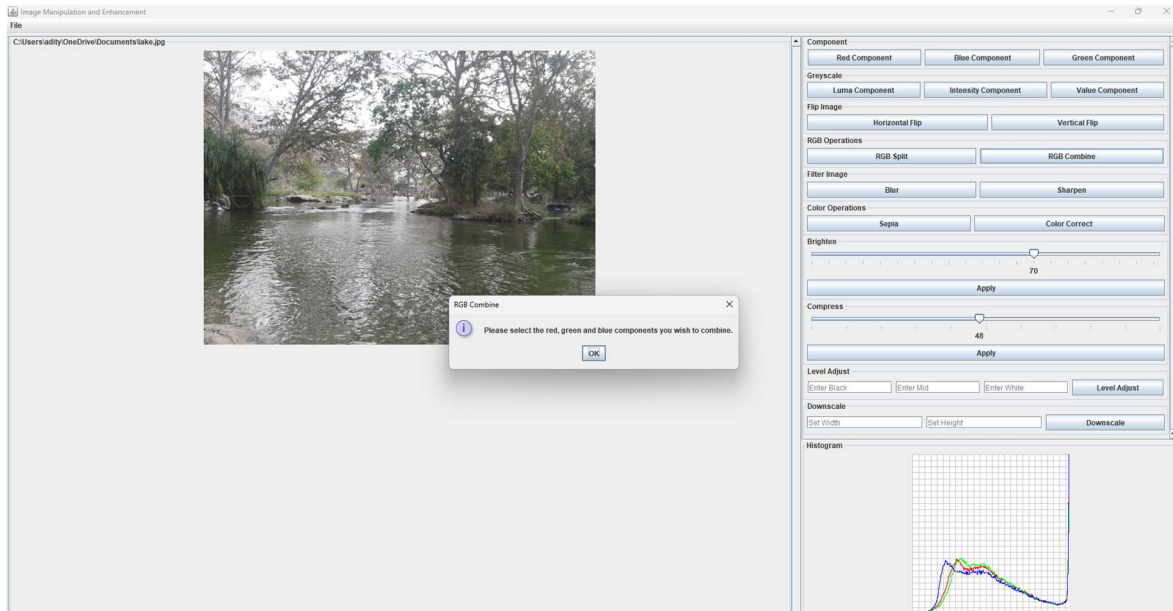
### \*RGB Split\*

Use the "RGB Split" button to split the image into red, green, and blue components.



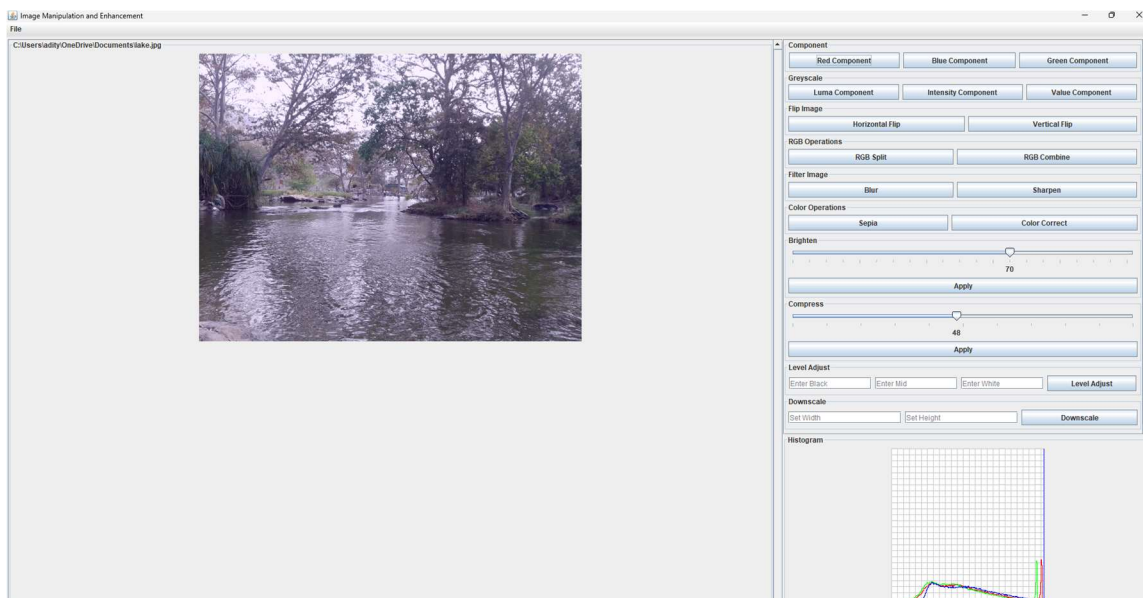
### \*RGB Combine\*

Use the "RGB Combine" button to combine the previously split RGB components into one image.



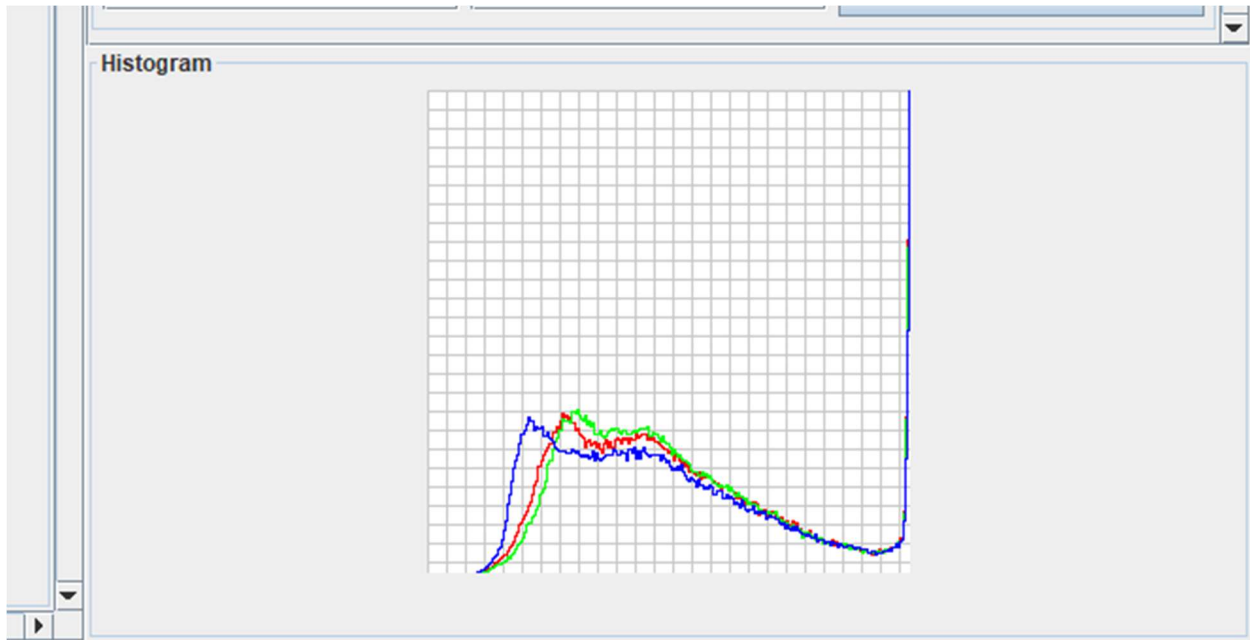
### \*Color Correction\*

Click the "Color Correct" button to adjust the color balance of the image. Enter desired split percentage for split preview and click apply.



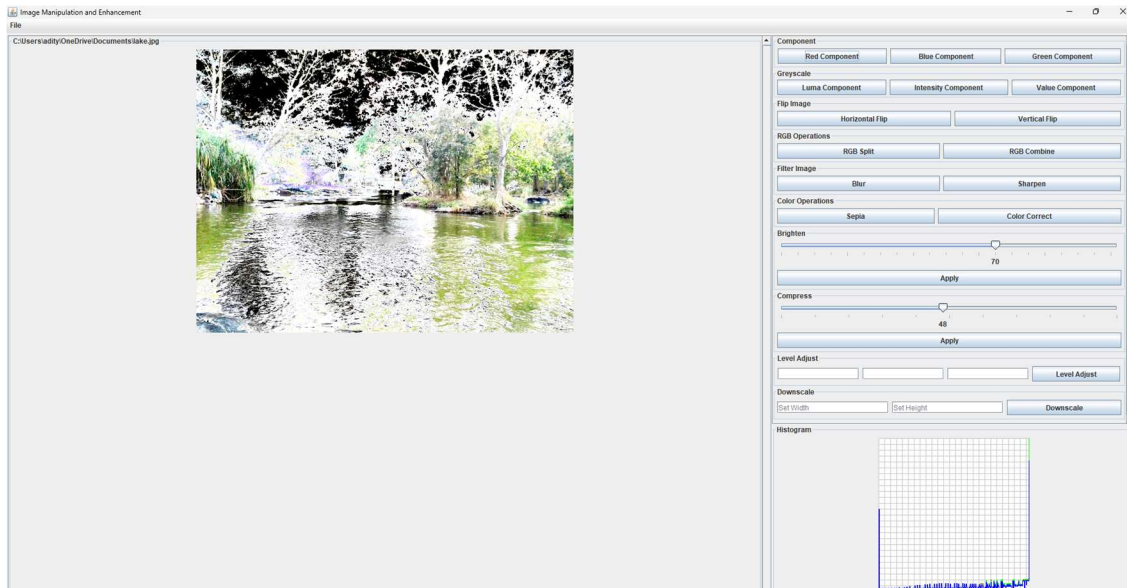
### \*Histogram\*

Histogram is always displayed on the bottom right corner of the screen, and refreshes with every operation performed.



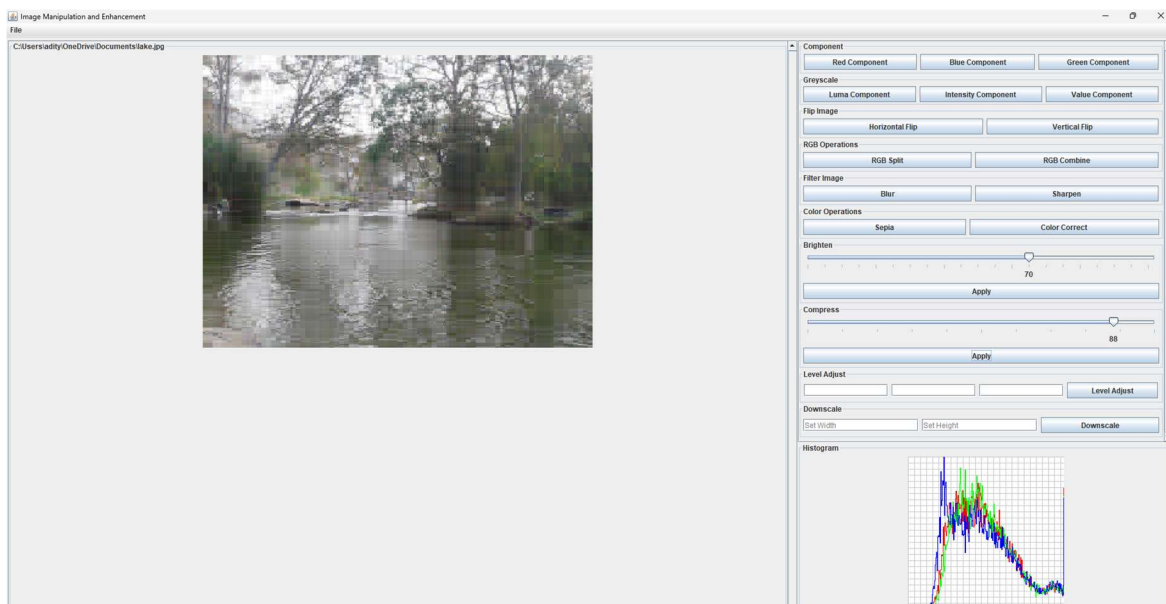
### \*Levels Adjust\*

Use the "Levels Adjust" button to adjust the black, mid, and white points for the image. Enter desired split percentage for split preview and click apply.



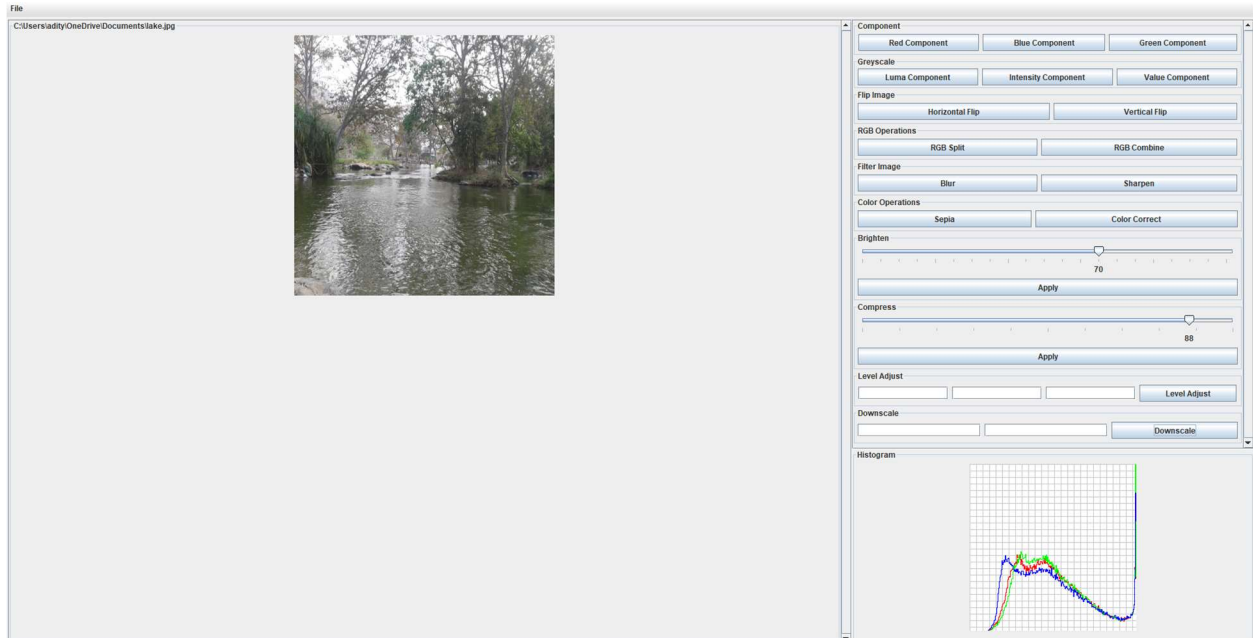
### \*Compress\*

Click the "Compress" button to compress the image. You can specify the quality using the slider.



### \*Downscale\*

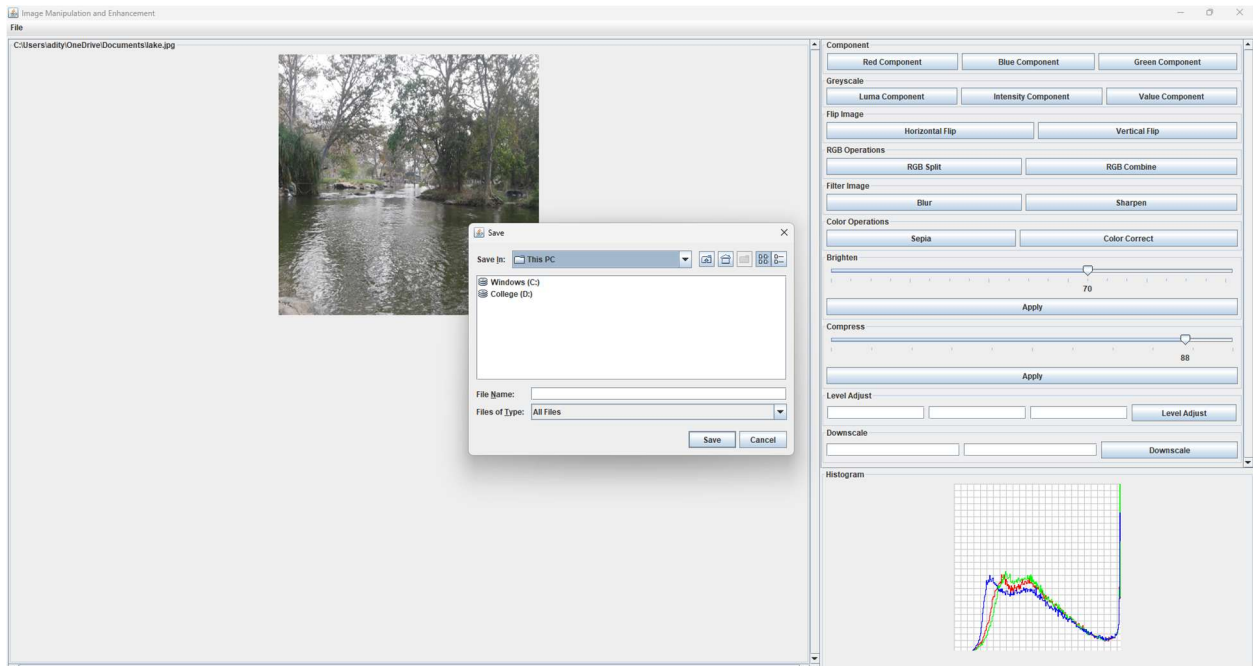
Use the "Downscale" button to resize the image. Specify the new width and height in the input fields.



**\*Save the Image\***

Navigate to File -> Save as.

Enter a name and select the location where you want to save the image.



**\*Exit\***

Navigate to File -> Exit.

**\*\* Script commands supported by the application \*\***

load

Usage: load test-images/sample.png Aditya



save

Usage: save aditya-blue aditya-blue.png

blue-component

Usage: blue-component aditya aditya-blue

green-component

Usage: green-component aditya aditya-green

red-component

Usage: red-component aditya aditya-red

blur

Usage: blur aditya aditya-blurred

brighten

Usage: brighten 30 aditya aditya-brightened

sepia

Usage: sepia aditya aditya-sepia

horizontal-flip

Usage: horizontal-flip aditya aditya-flipped

vertical-flip

Usage: vertical-flip aditya aditya-vert-flip

sharpen

Usage: sharpen aditya aditya-sharpened

rgb-split

Usage: rgb-split aditya aditya-red-split aditya-green-split aditya-blue-split

rgb-combine

Usage: rgb-combine aditya-rgb-combined aditya-red-split aditya-green-split aditya-blue-split

conditions: Rbgsplit must be run before rgbCombine

value-component

Usage: value-component aditya aditya-value

intensity-component

Usage: intensity-component aditya aditya-intensity

luma-component

Usage: luma-component aditya aditya-luma

color-correct

Usage: color-correct aditya colorCorrectedaditya

histogram

Usage: histogram aditya histogramImage

levels-adjust

Usage: levels-adjust 20 100 255 aditya leveladjustedAditya

compress

Usage: compress aditya compressedImage 90

split

Usage: sharpen aditya aditya-sharpen-split-50 split 50

downscale

Usage: downscale aditya aditya-downscaled 400 300

mask

Usage: blur aditya aditya-masked Aditya-blur-mask.png

- It works with features like blur, sharpen, etc.
- In this case Aditya-masked will be a black-and-white image (intermediary image, NOT SAVED)
- Aditya-blur-mask.png will be the final image with mask operation performed on it

