Project Title: Image Augmentation

Team Details:

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Project Directory:

/assets/ : MakeData.ui,Interface.ui,logo.png,temp.png.
/sample/ : Sample images to test run**.**
/test/ : Sample of tested images.
/ : aug.py
requirements.txt
readme.pdf

Packages :

PyQt5==5.15.4
tensorflow==2.4.1
Keras==2.4.3
numpy==1.19.5
scipy==1.6.1
matplotlib==3.3.4

To install the above packages requirements.txt should be located in the project directory.

Run command : pip install -r requirements.txt
Alternate command : pip3 install -r requirements.txt

Note: To run the above commands , the python environment should be equipped with pip/pip3 scripts.

How to run the project ?

aug.py is the original file containing the code.
To run the project following steps are to be followed:
1. Navigate to the project directory.
2. Open Command Prompt/Terminal in the project directory.
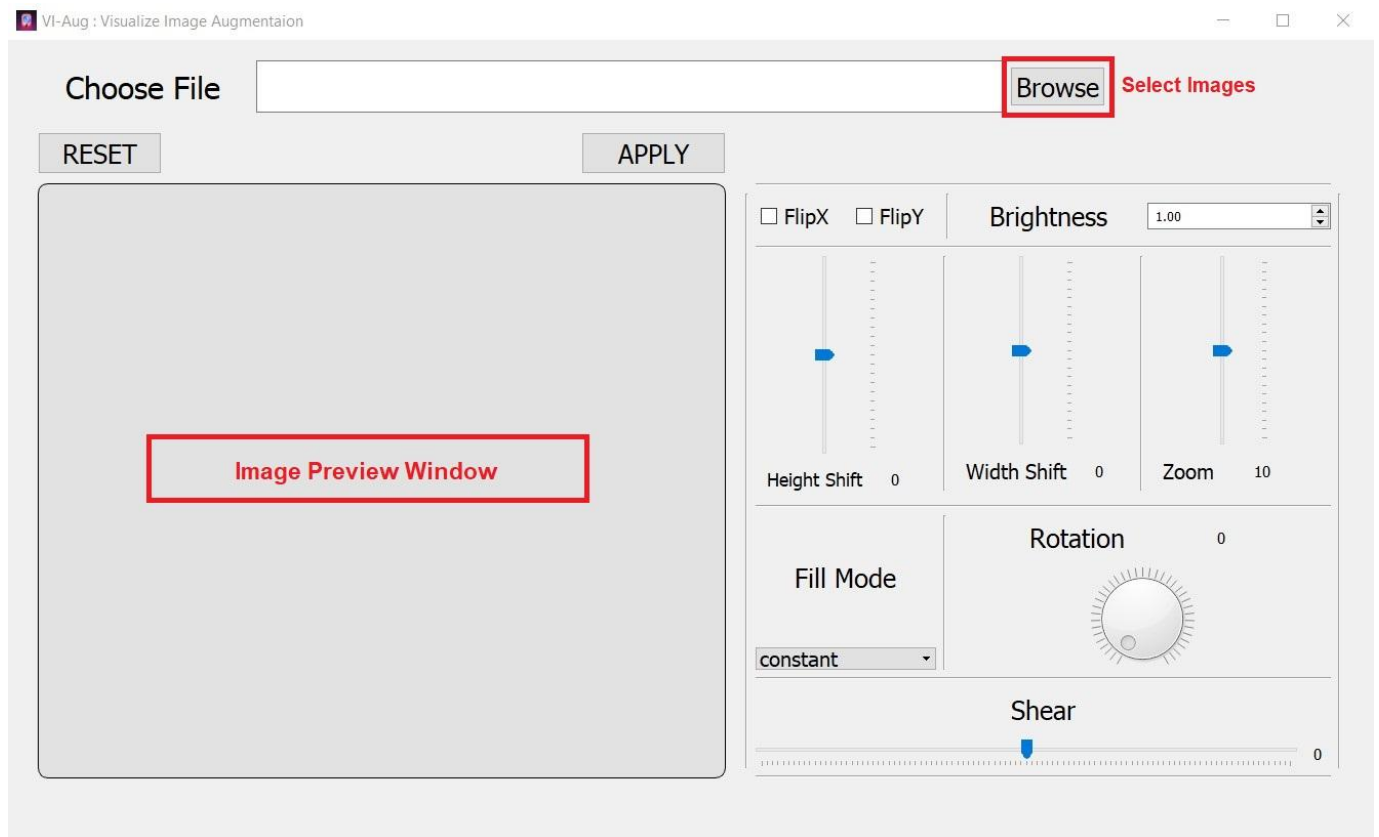3. Write command : **python aug.py**
    If this doesn't work write :   **python3 aug.py**

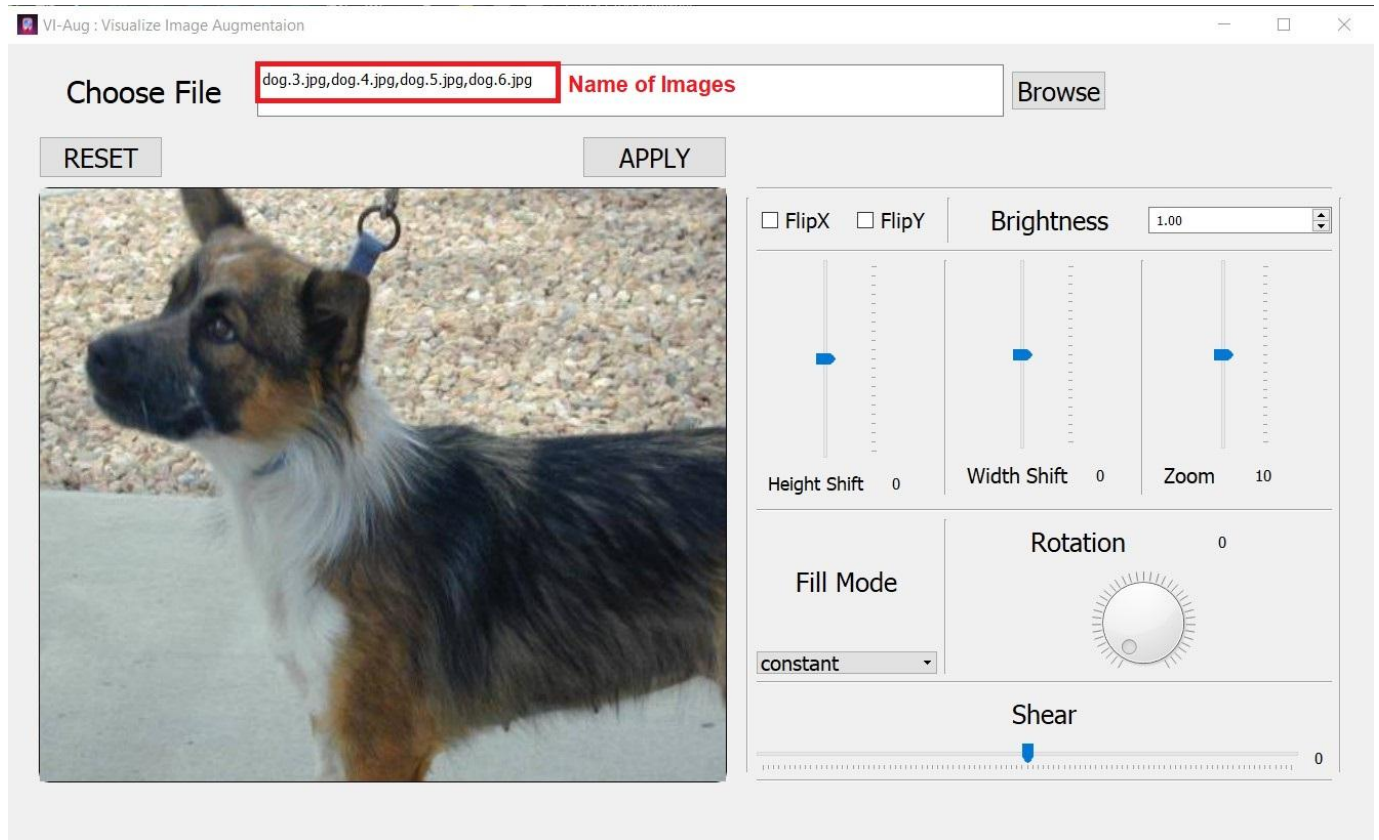**Input:** Image files (multiple at a time allowed) .

Output: Batches of Images as selected by the user when effects are applied images. Users can select the destination folder.
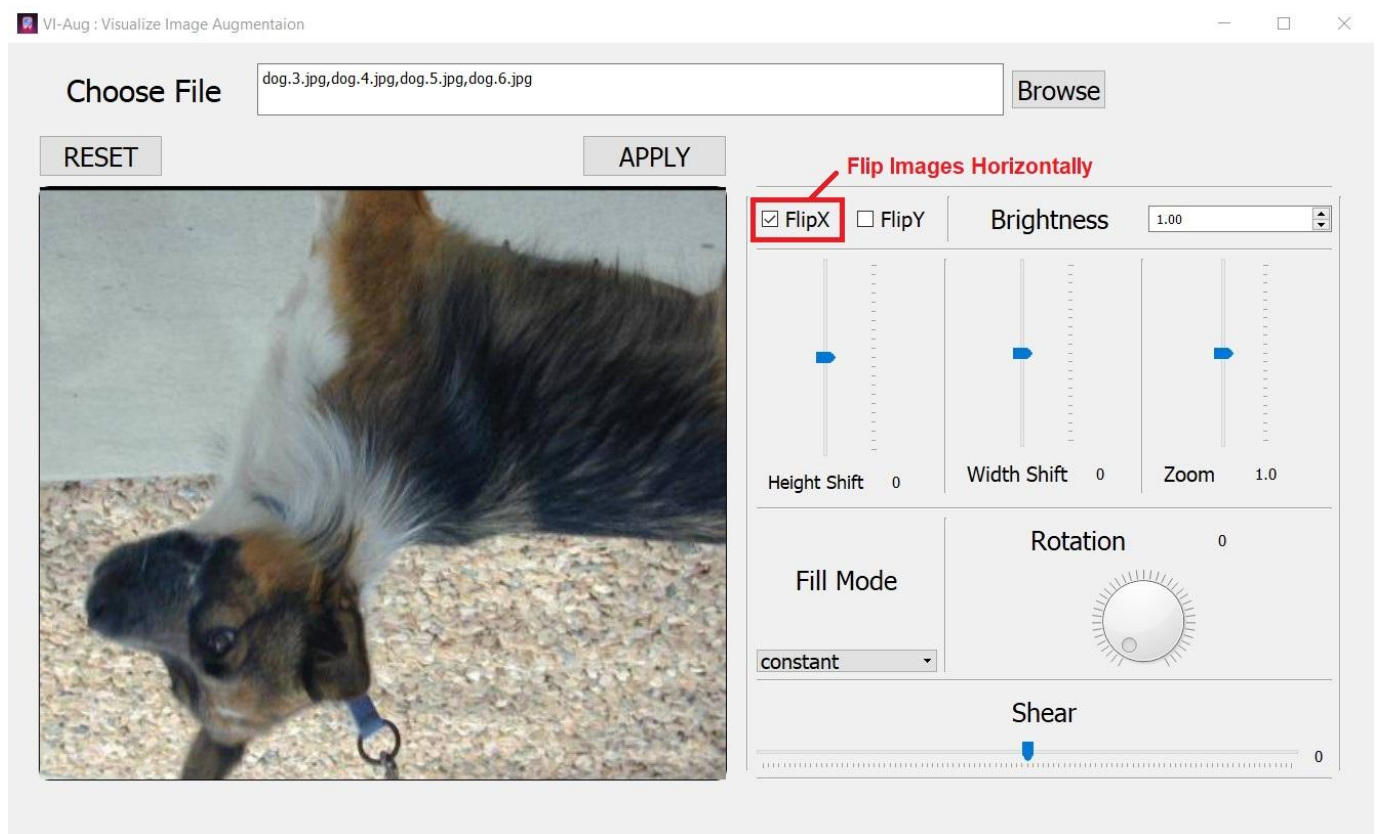
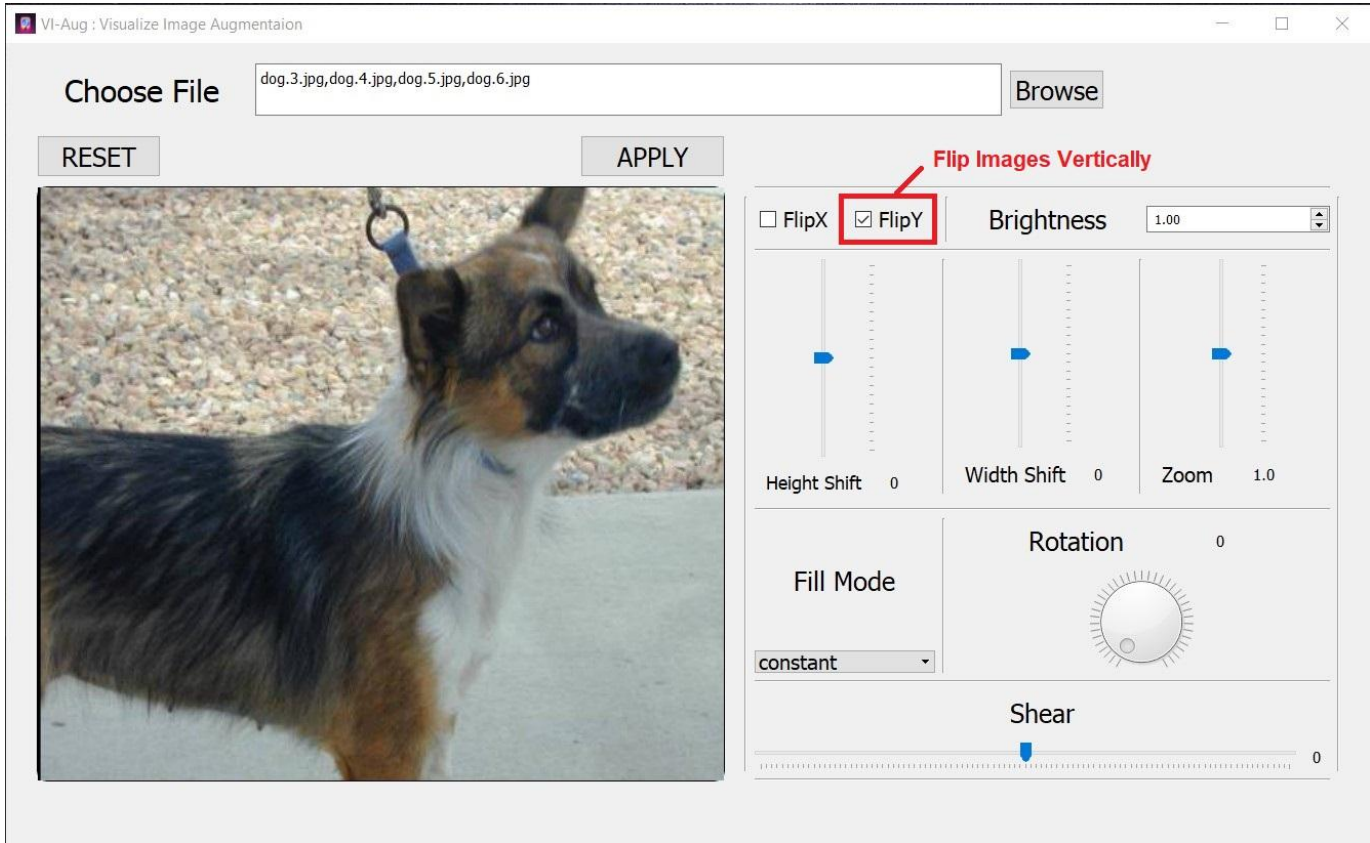## Tool Components :

Browse: Select Images from Directory

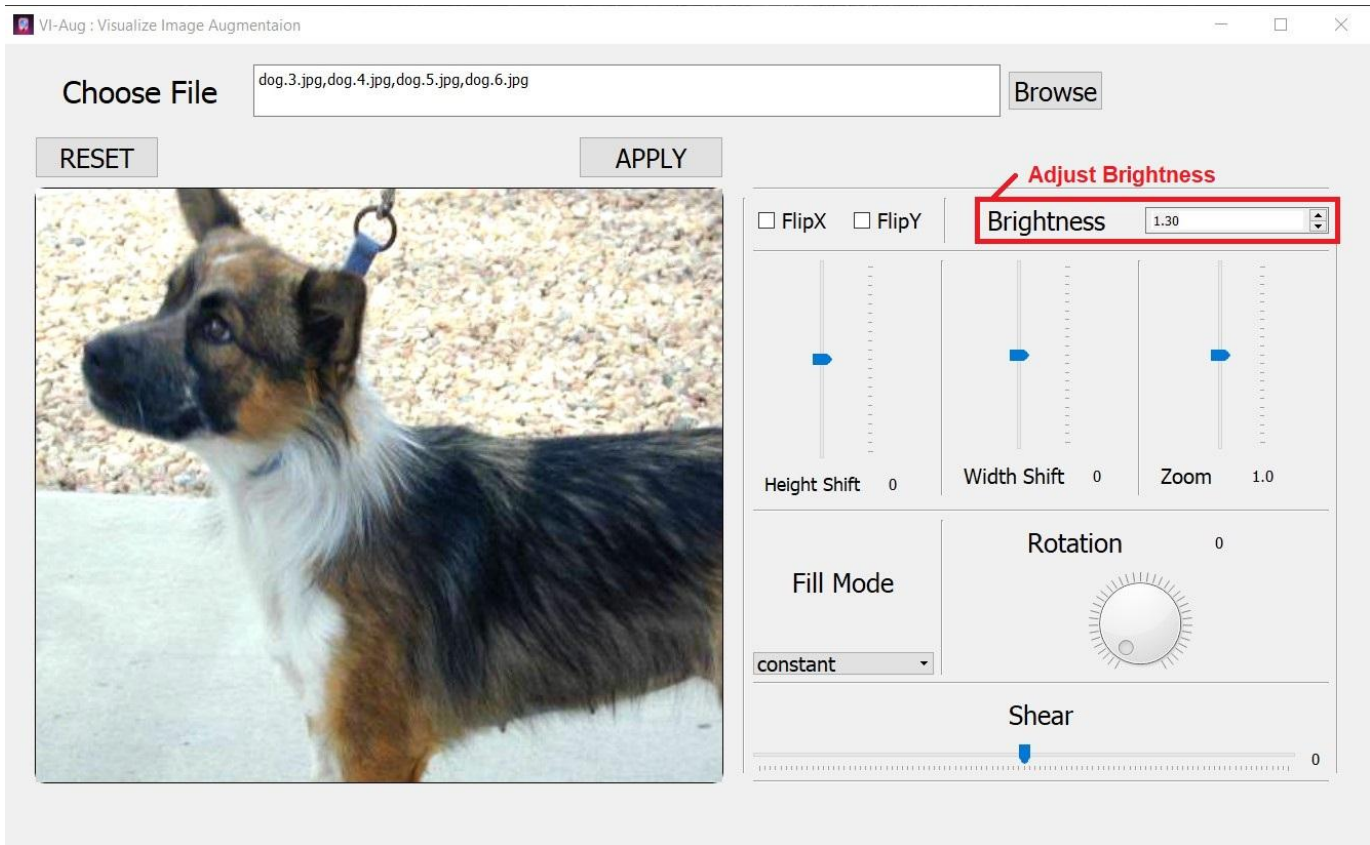**Allowed Image extensions :** jpg,jpeg,png,gif.

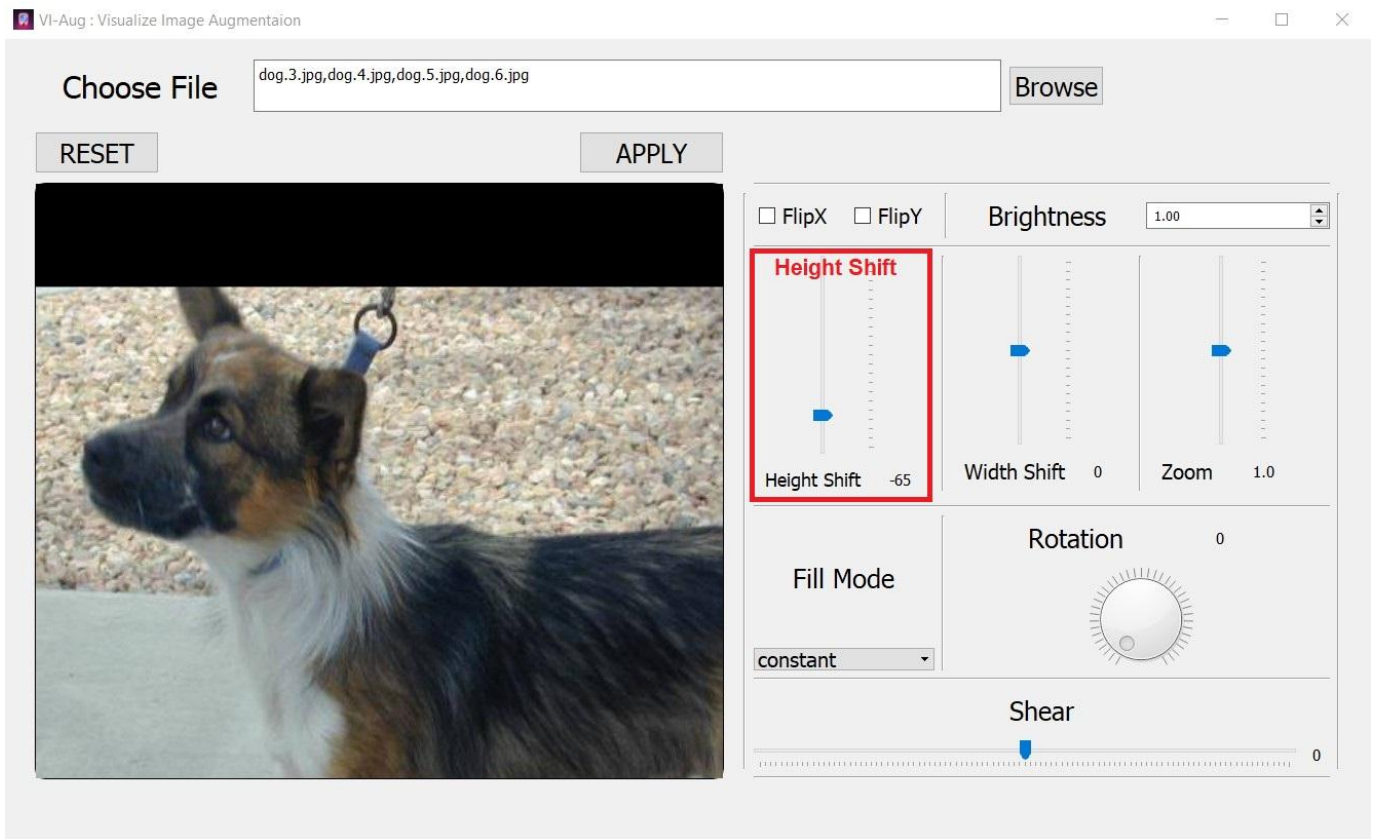

Flip-X : Flip Image along X-axis.

Flip-Y : Flip Image along Y-axis.

Brightness   : Adjust brightness.

Height Shift : Move Image Vertically.

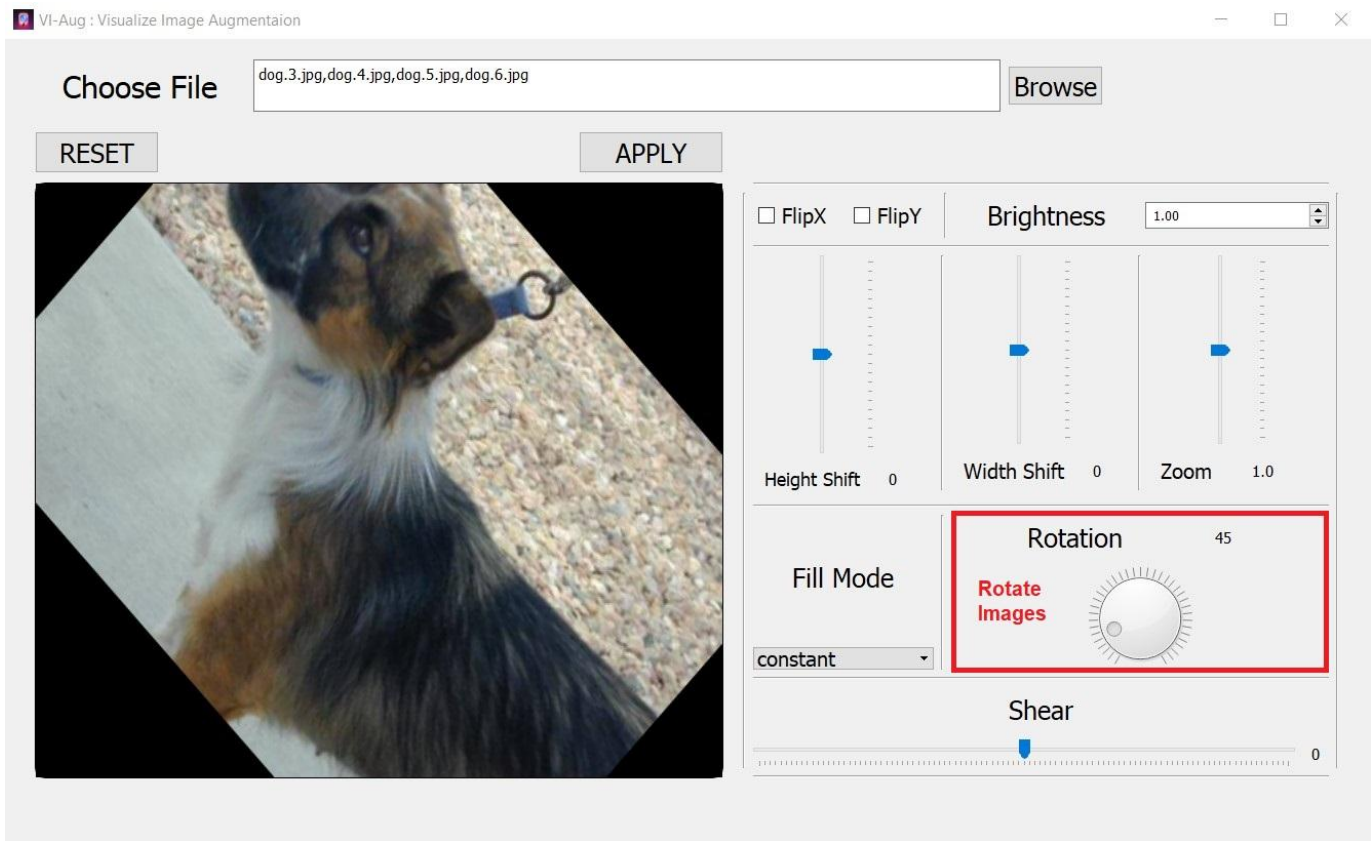**Width Shift : Move Image Horizontally.**
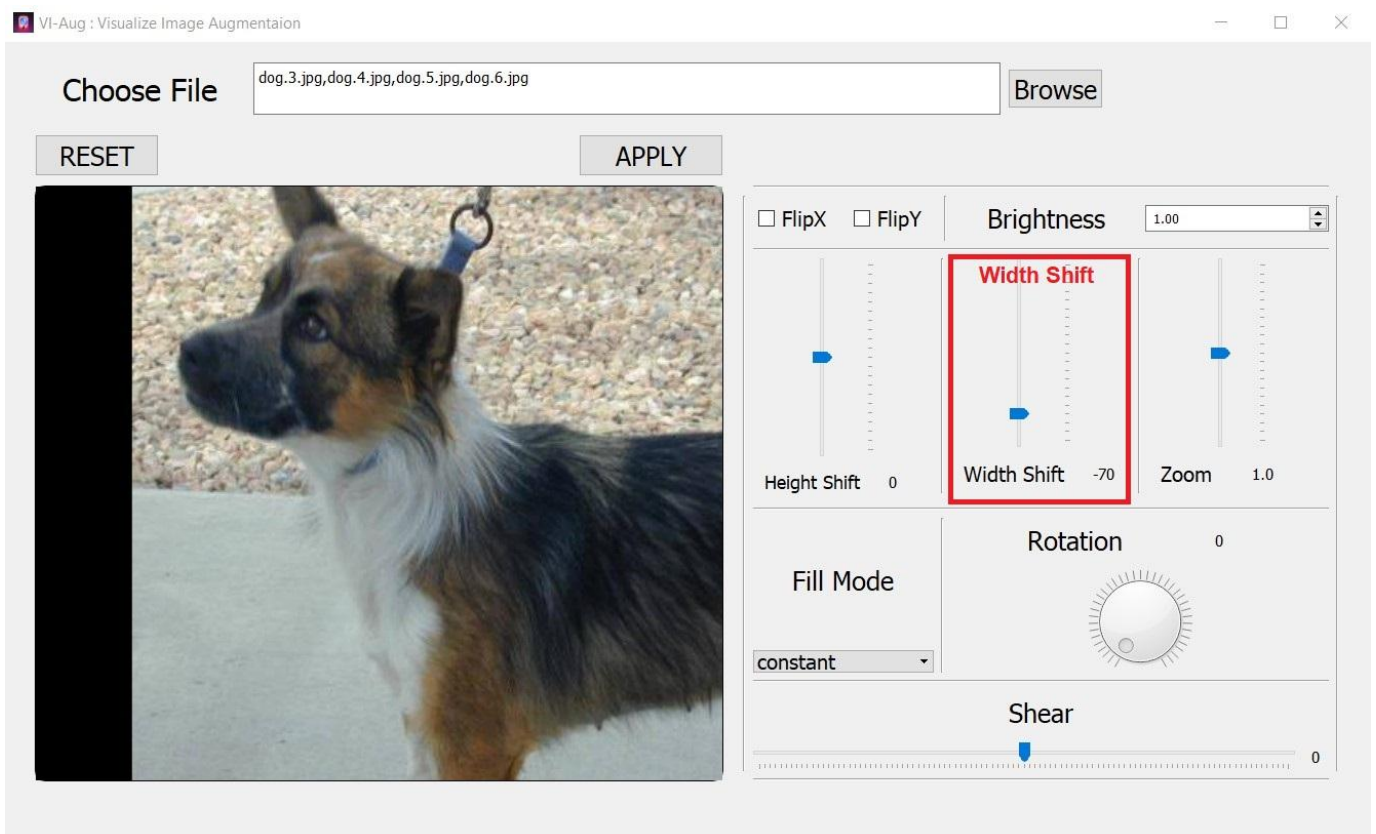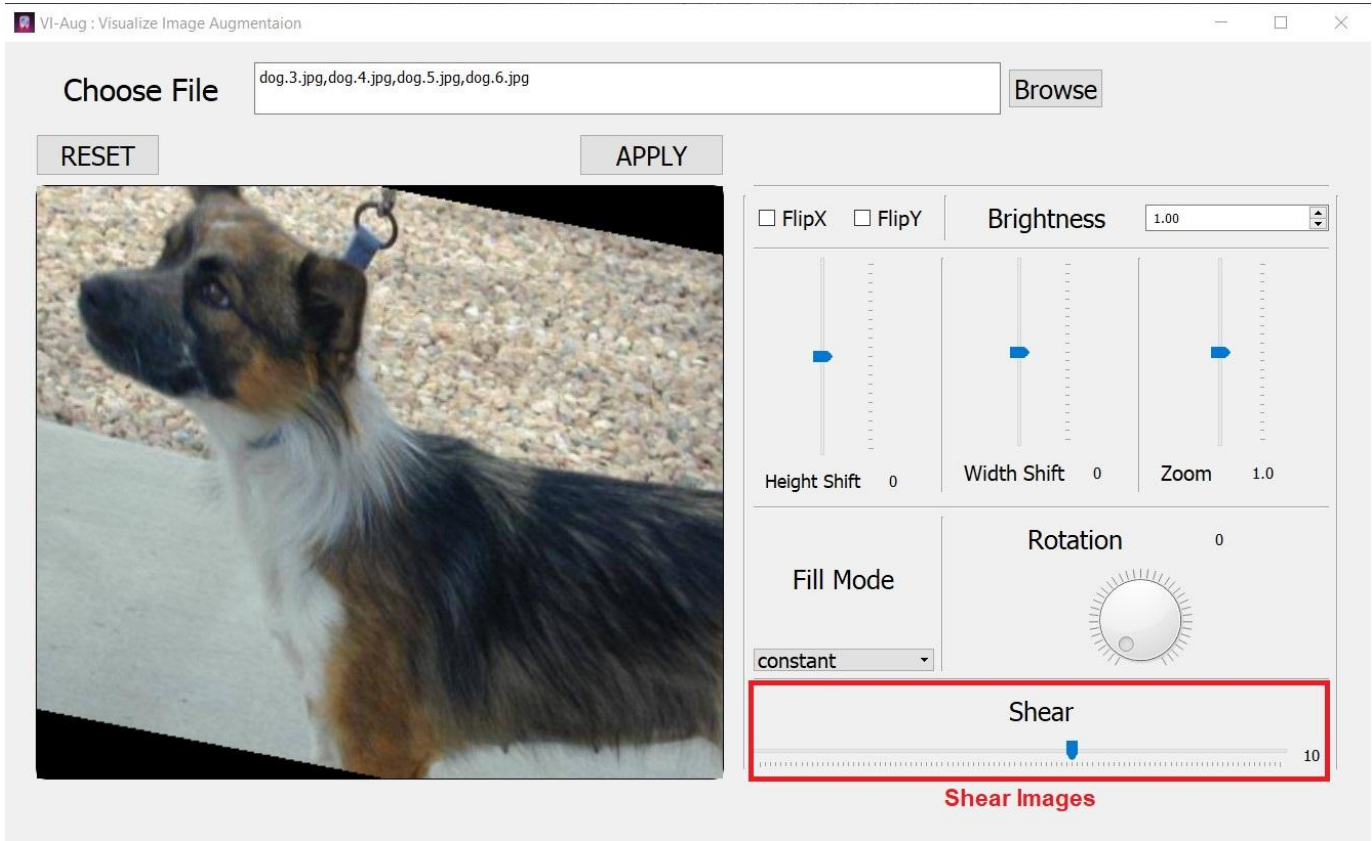
Zoom : Zoom in or Zoom out.
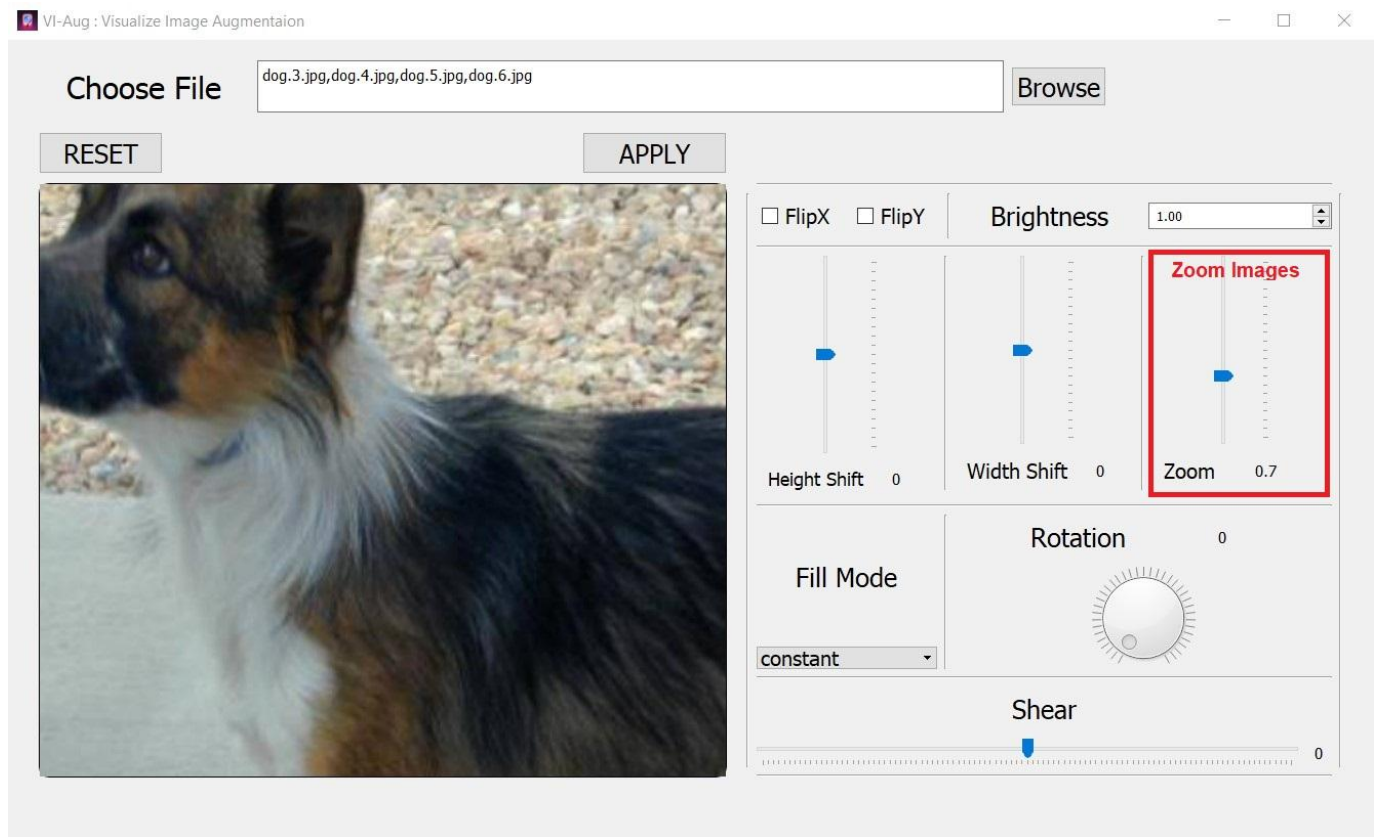
Fillmode: Select fill options.
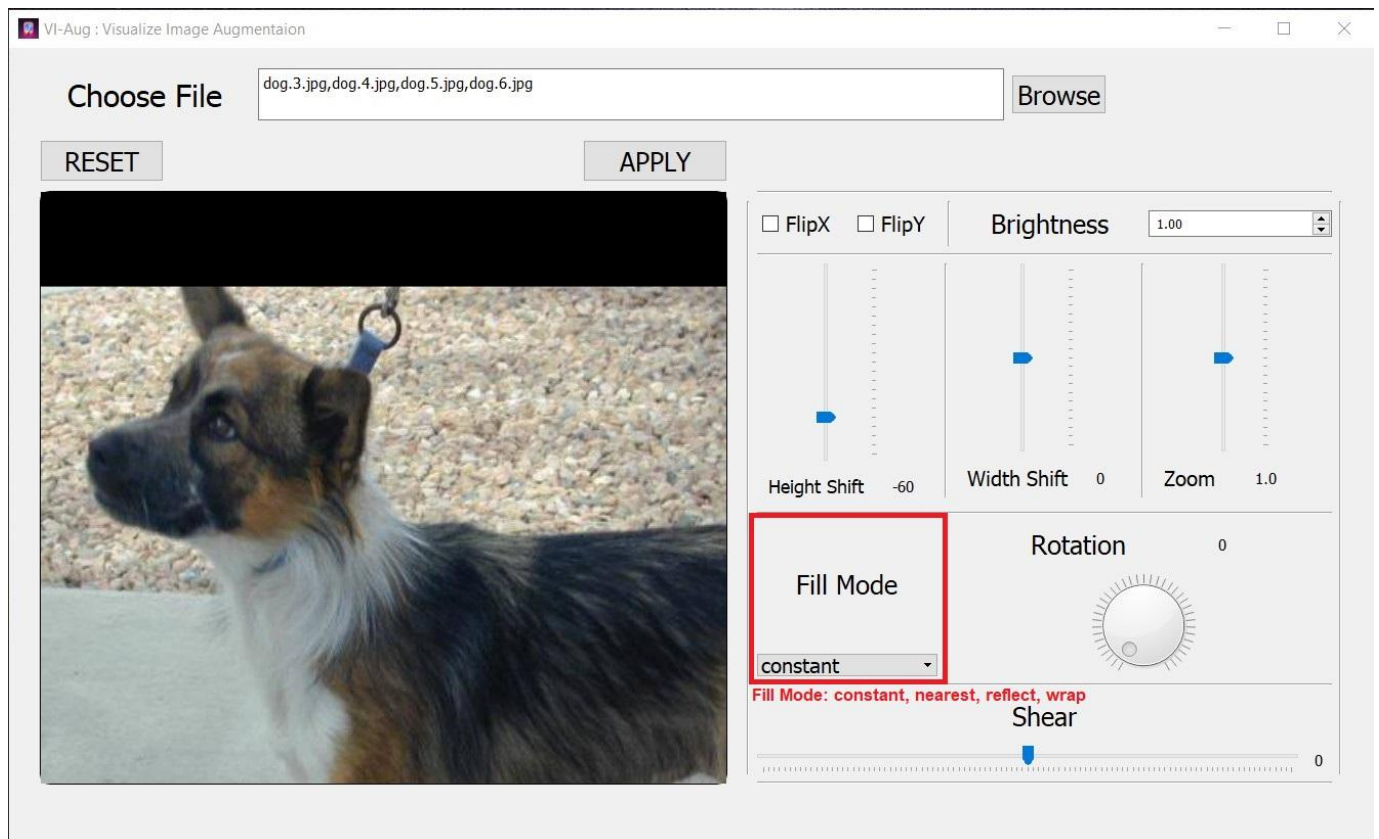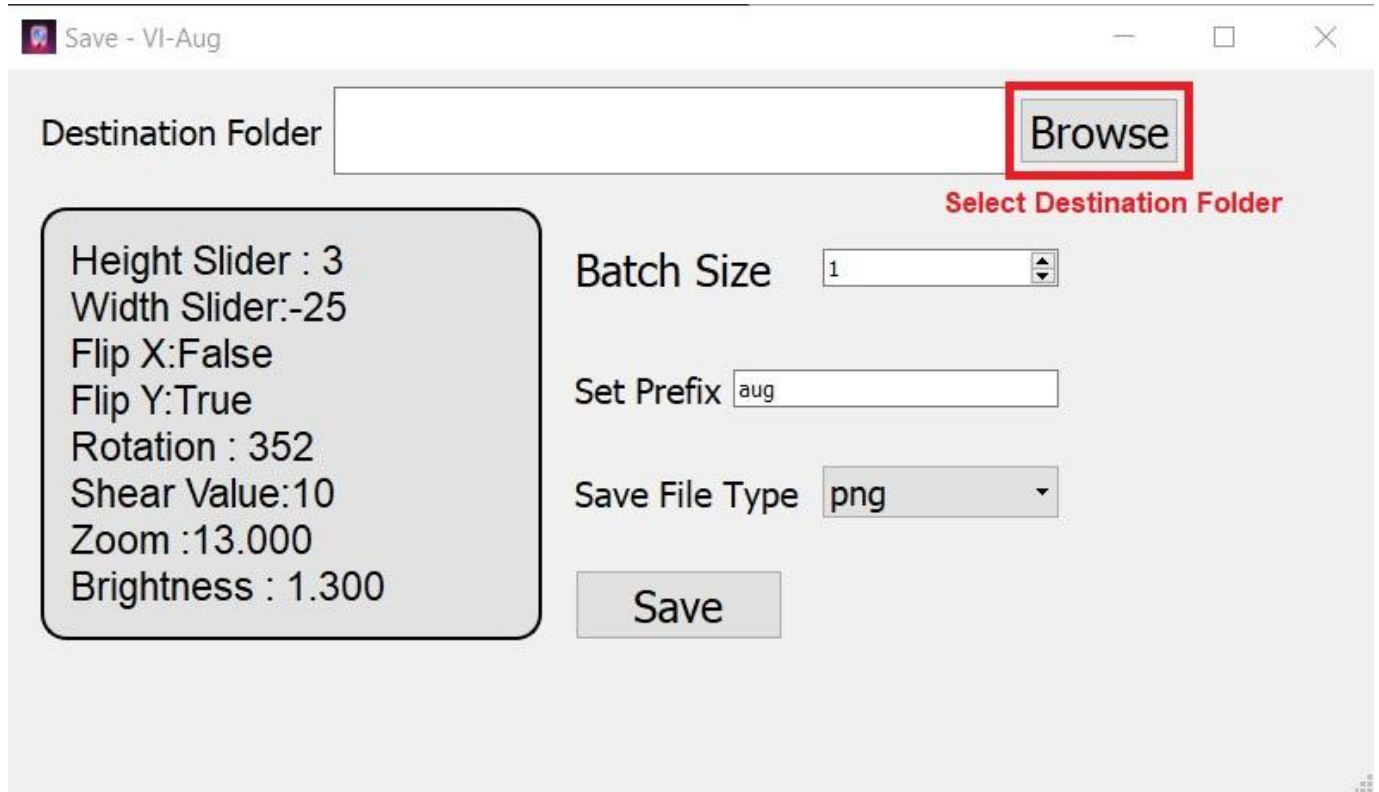
Rotation: Rotate the Image 0º to 360º.

Shear : Stretch image horizontally.

Browse: Select Destination Folder.

Batch Size : Select batch size for each photo to augment.

Prefix : Mention prefix for given batch of images(default prefix : aug).

Extension : Select extension for given batch of images(default extension : .png).
Allowed Extensions : png , jpeg .

Save: Save images at the selected destination folder

Destination Folder

C:/Users/Jash Mavani/OneDrive/Desktop/Jash/
Assignment_Project/PSC Project/Img

Browse
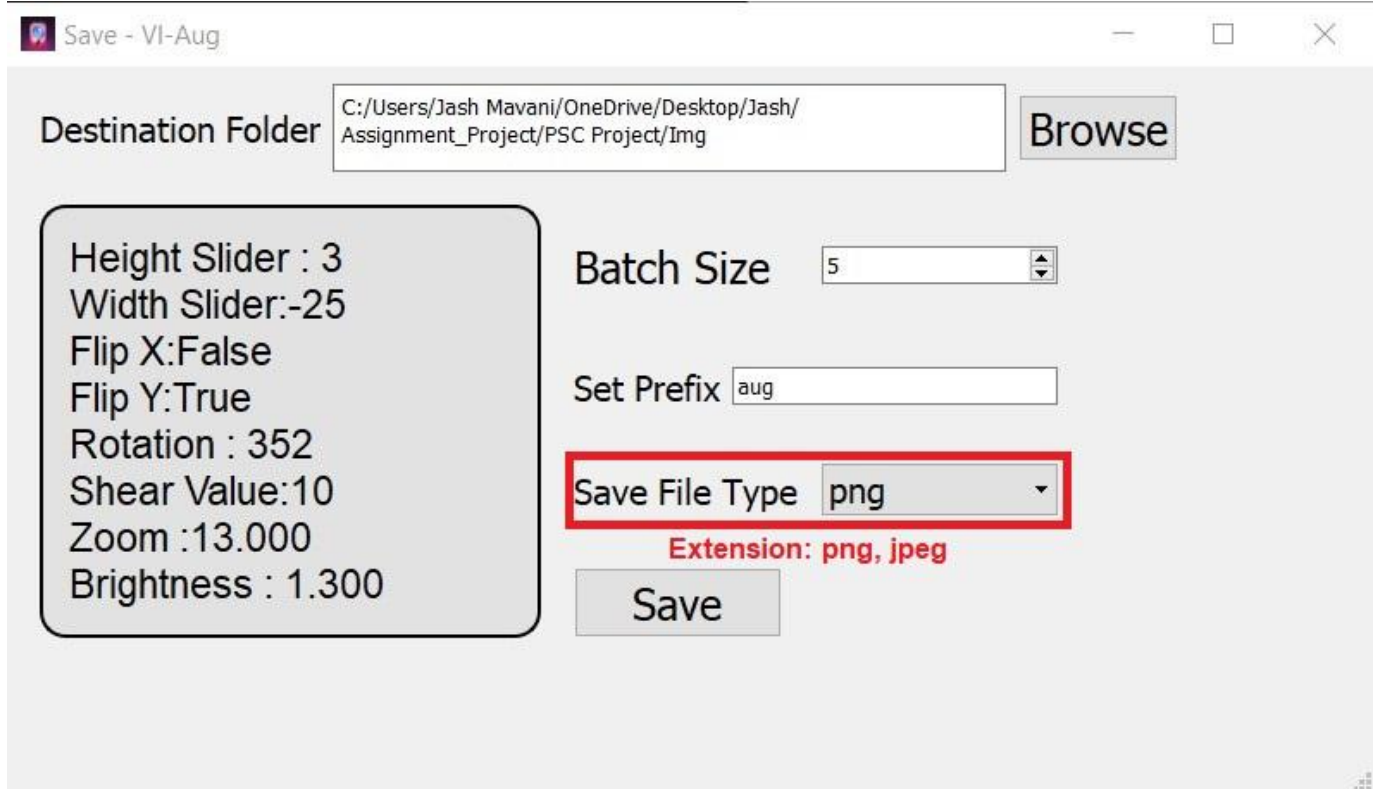
Height Slider : 3
Width Slider:-25
Flip X:False
Flip Y:True
Rotation : 352
Shear Value:10
Zoom :13.000
Brightness : 1.300

Batch Size   5

Set Prefix aug

Save File Type png

Save   **Save Images**