Project Title: Image Augmentation

Branch : Computer Science and Engineering

Division : B

Batch : B2

Team Details:

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19BCE123 - Jash Mavani

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.

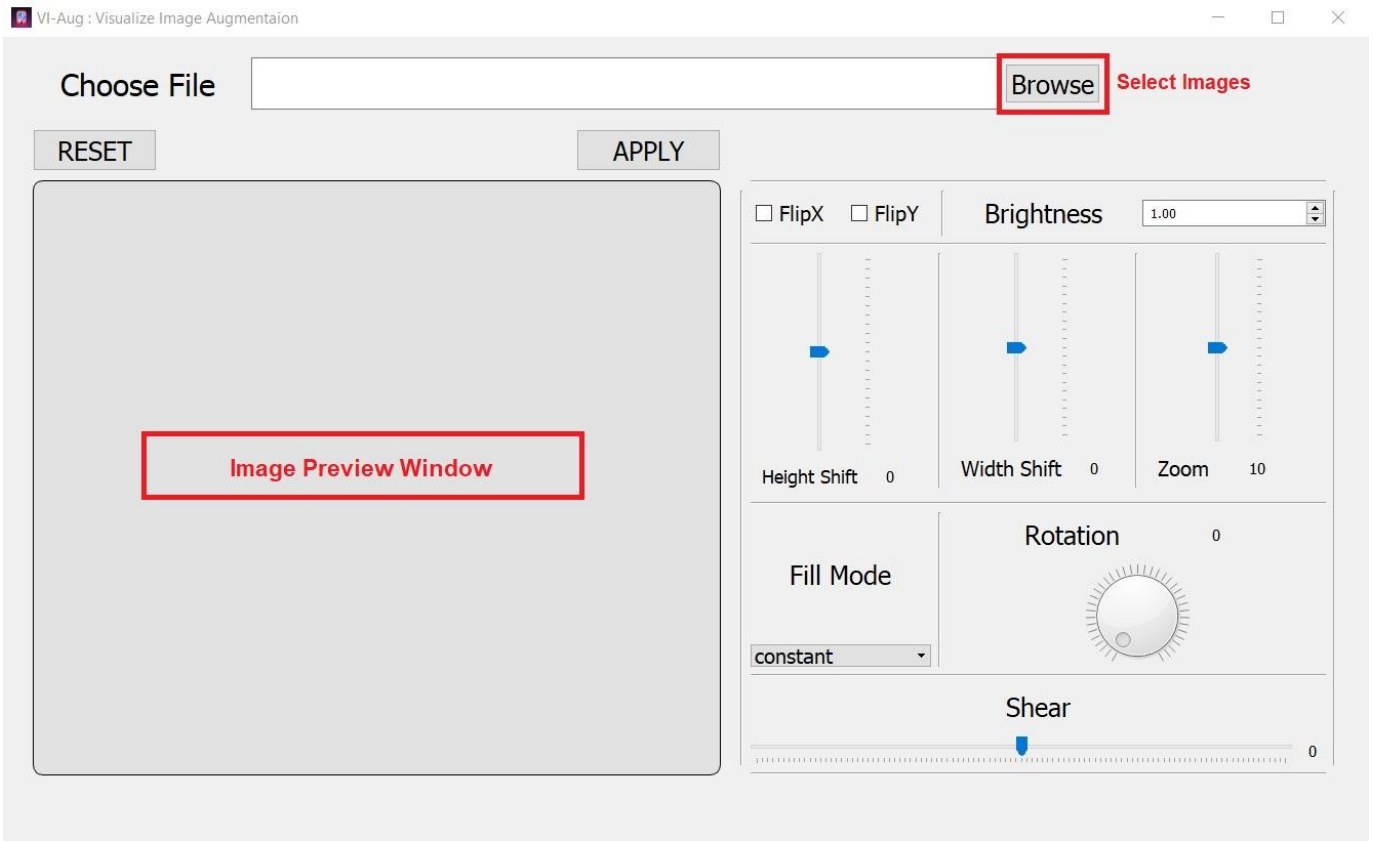
2. Open Command Prompt/Terminal in the project directory.
3. Write command : **python aug.py**
   If this doesn't work write : **python3 aug.py**

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

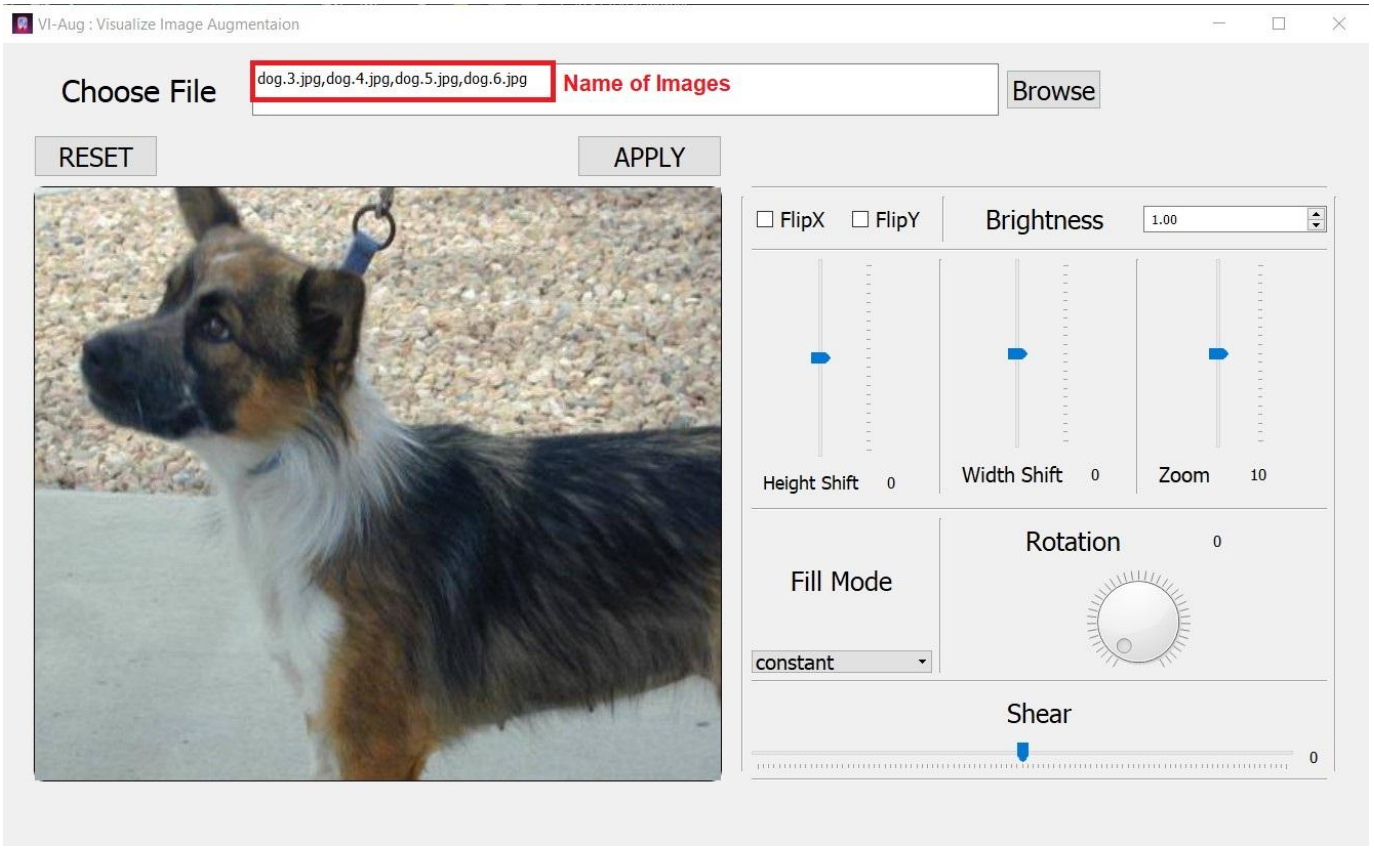
Output: Batches of Images as selected by the user when effects are applied images.
Users can select the destination folder.

Tool Components :

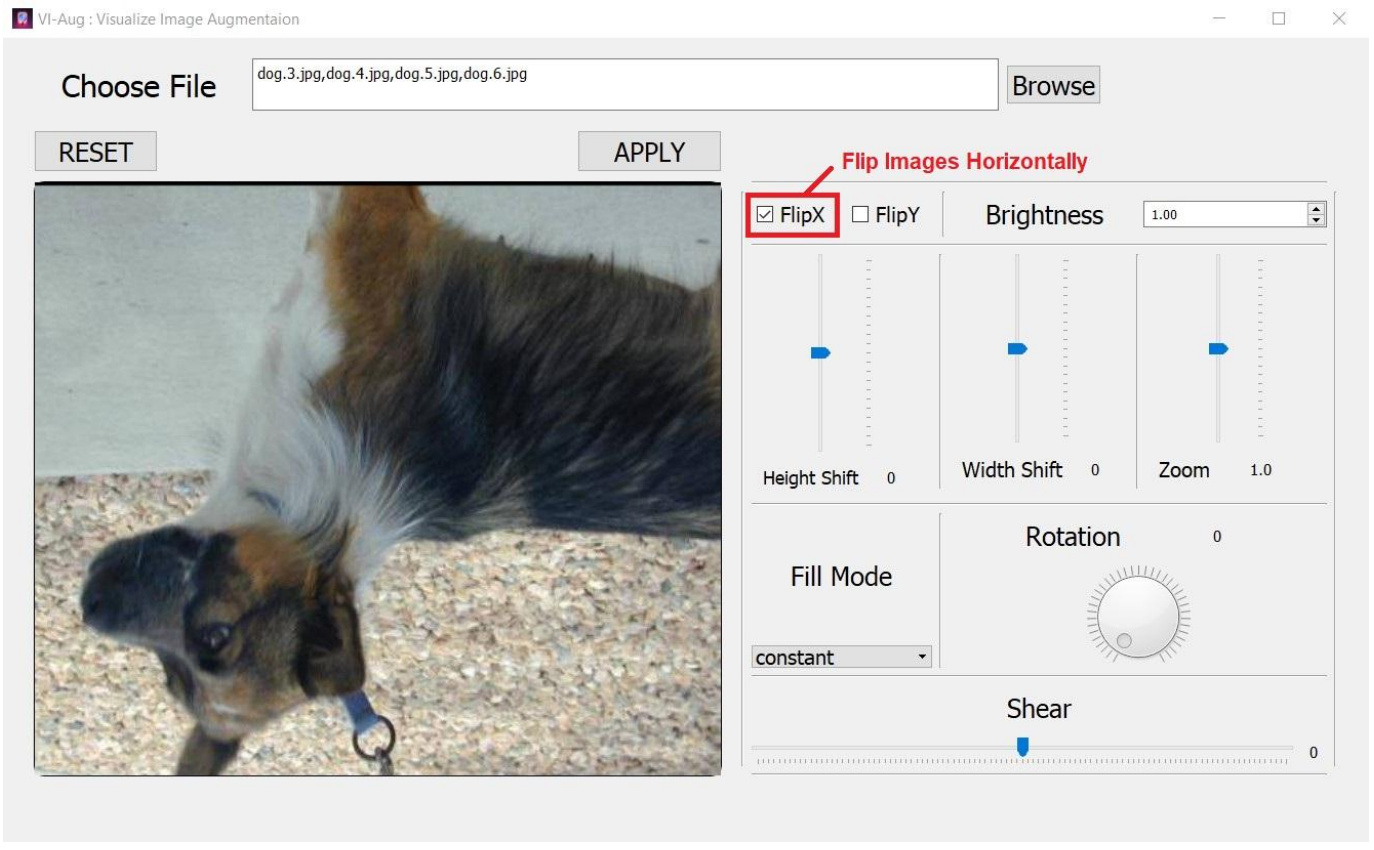
Browse: Select Images from Directory



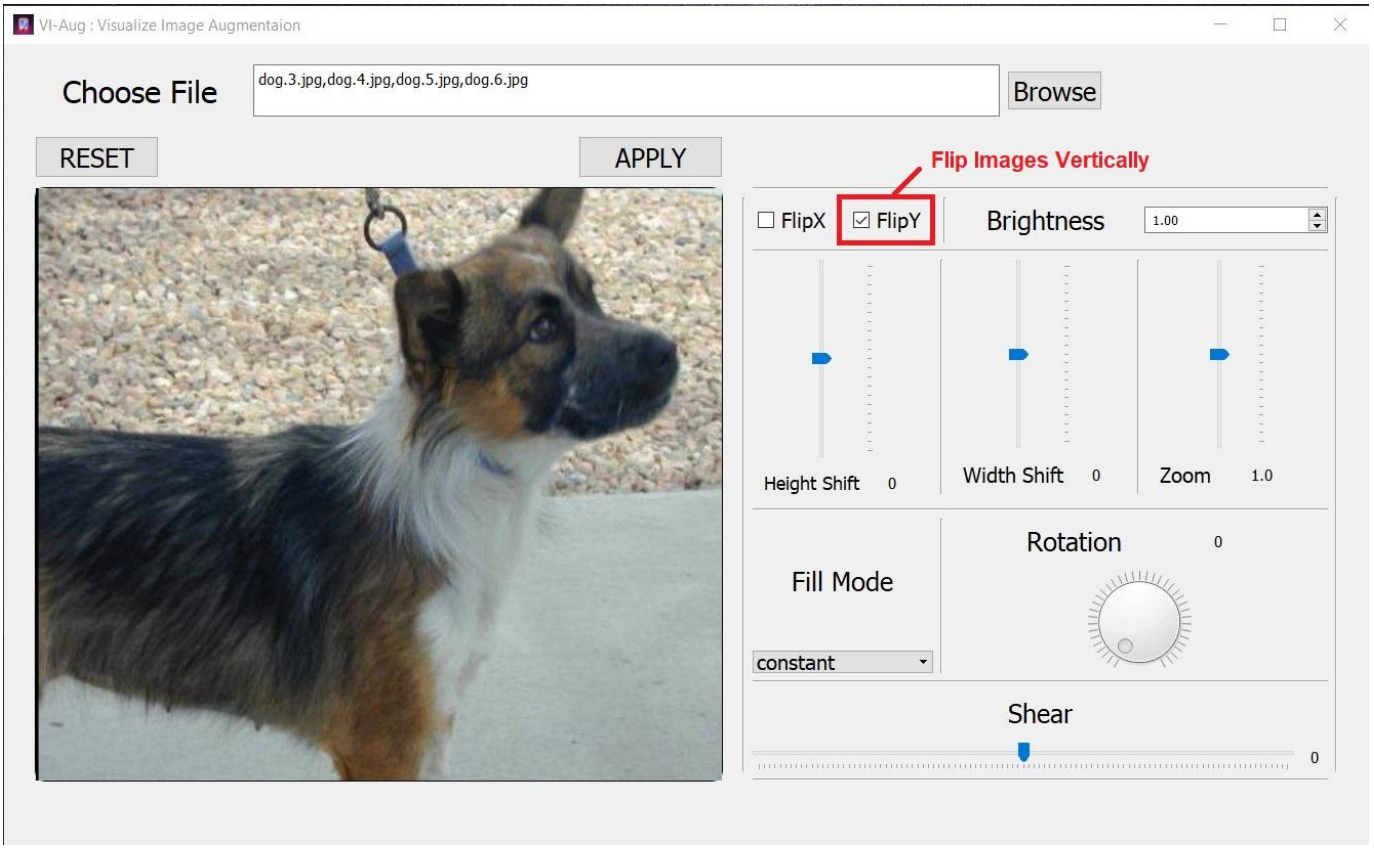
Allowed Image extensions : jpg,jpeg,png,gif.



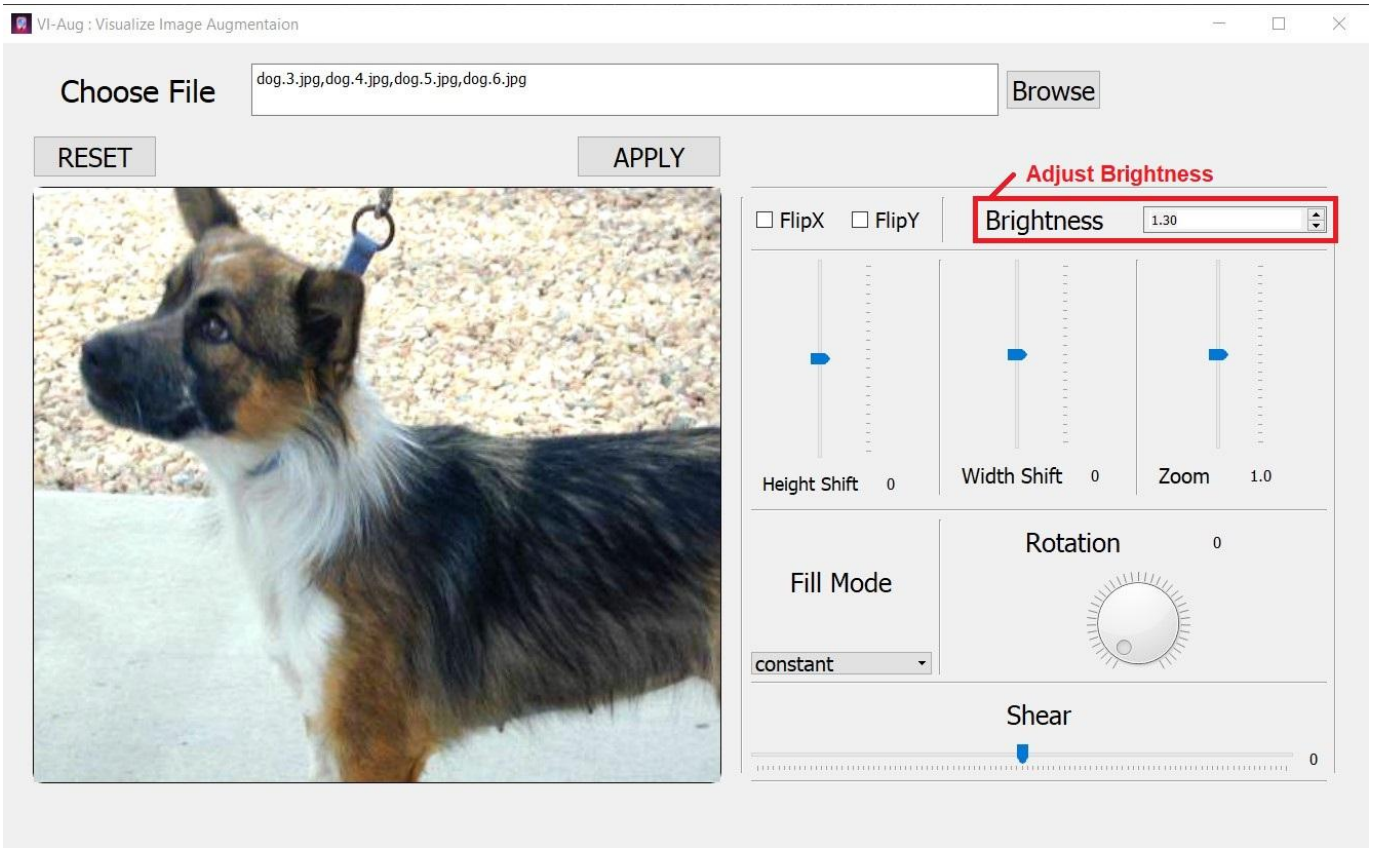
Flip-X : Flip Image along X-axis.



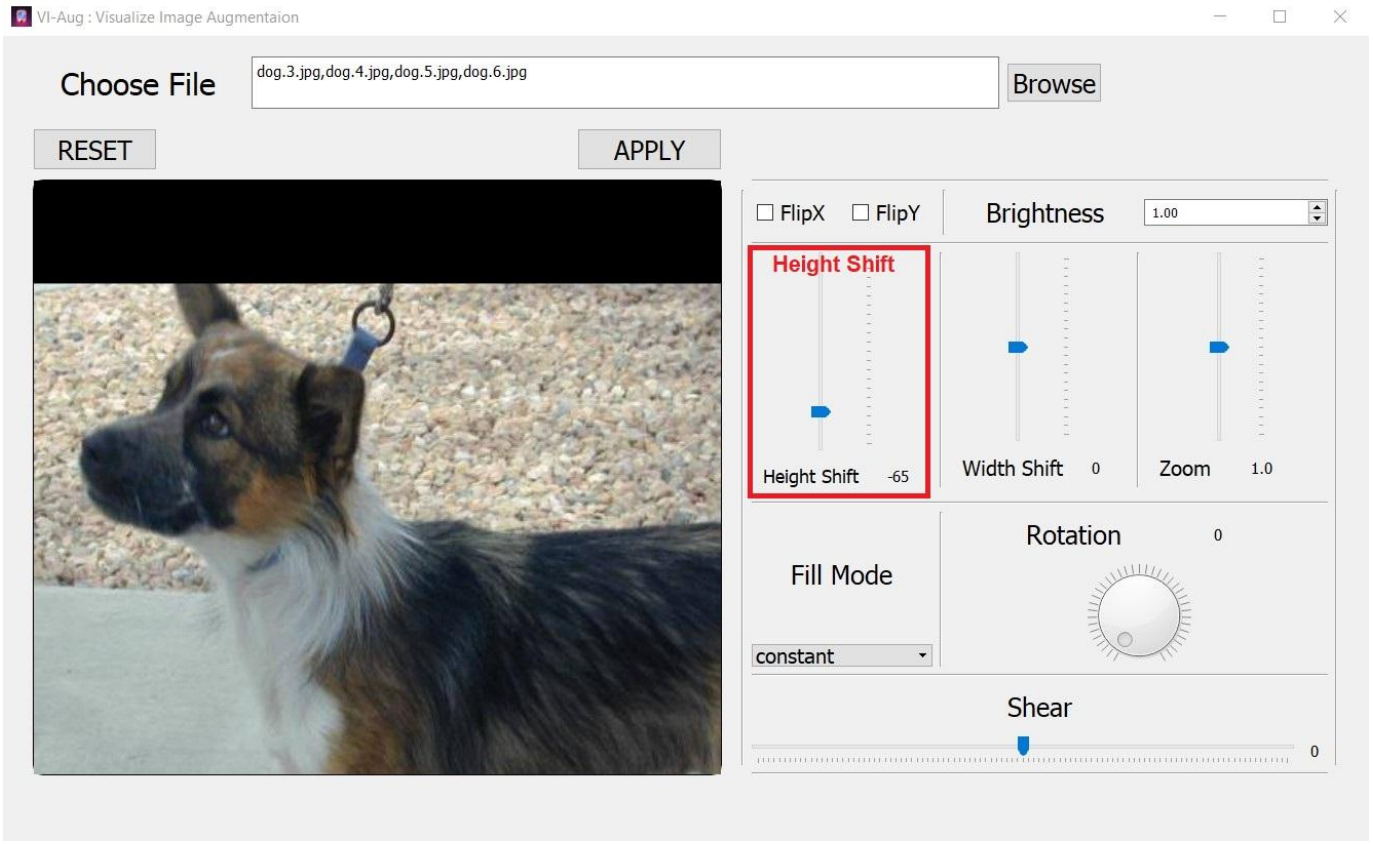
Flip-Y : Flip Image along Y-axis.



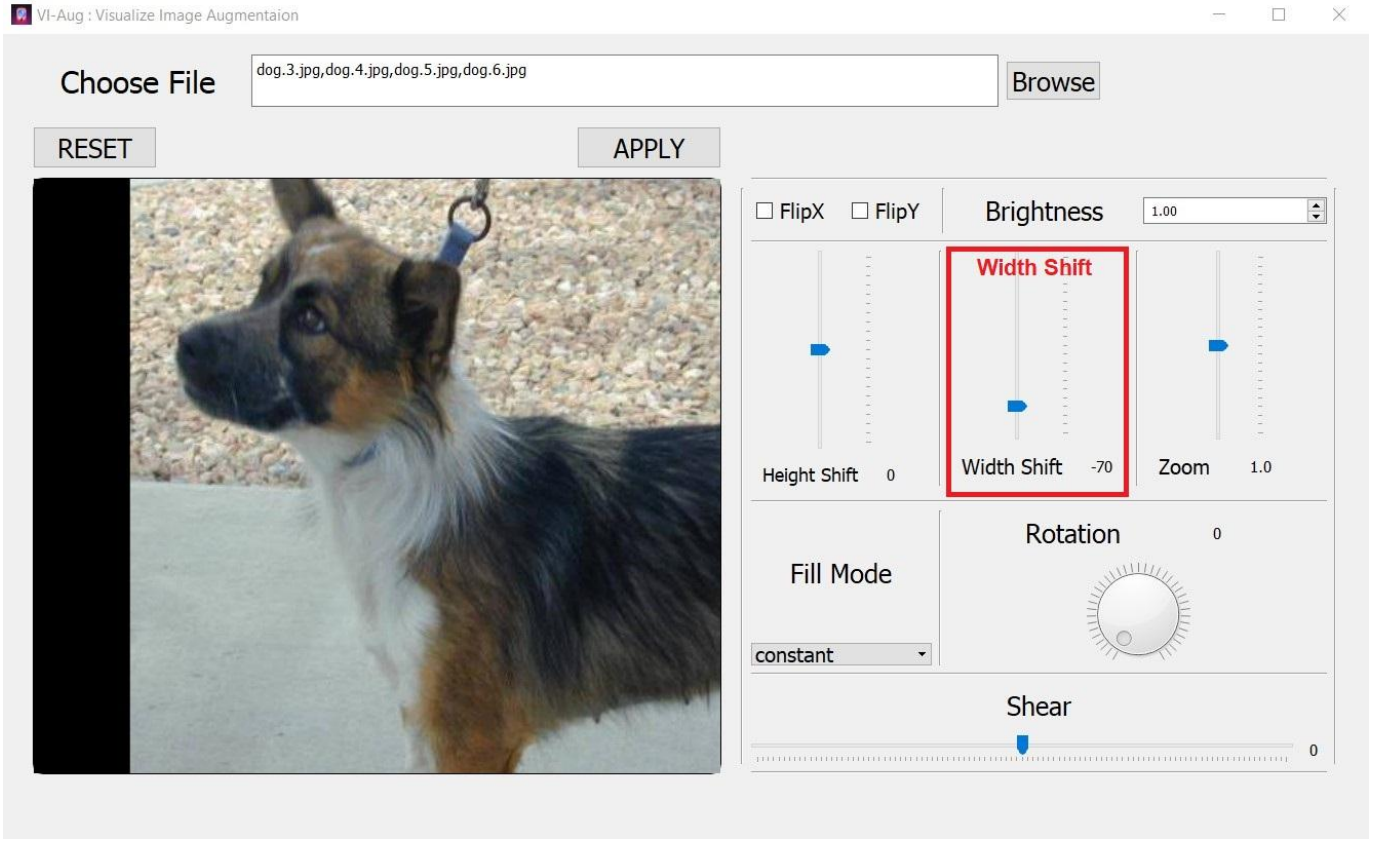
Brightness **:** Adjust brightness.



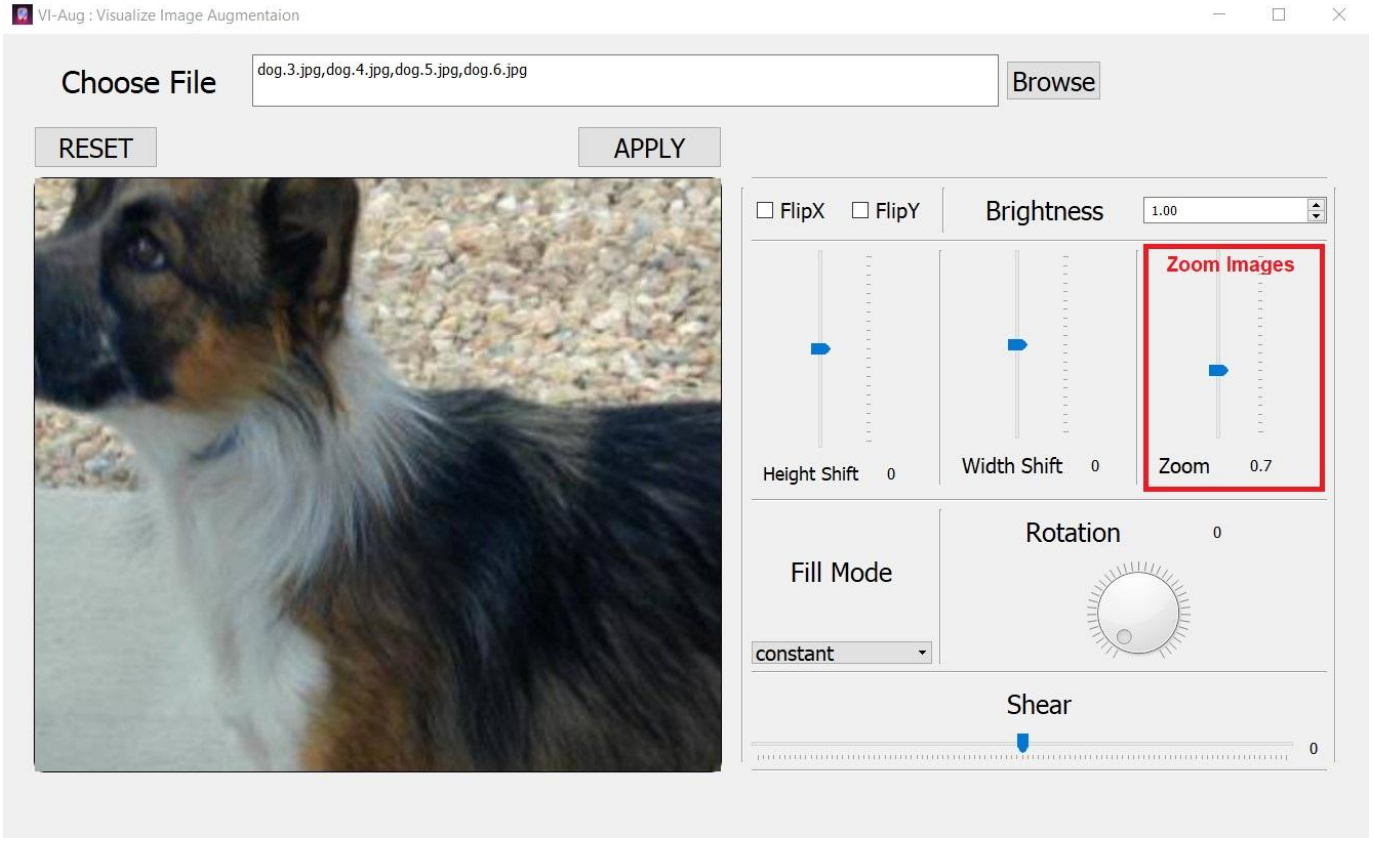
Height Shift : Move Image Vertically.



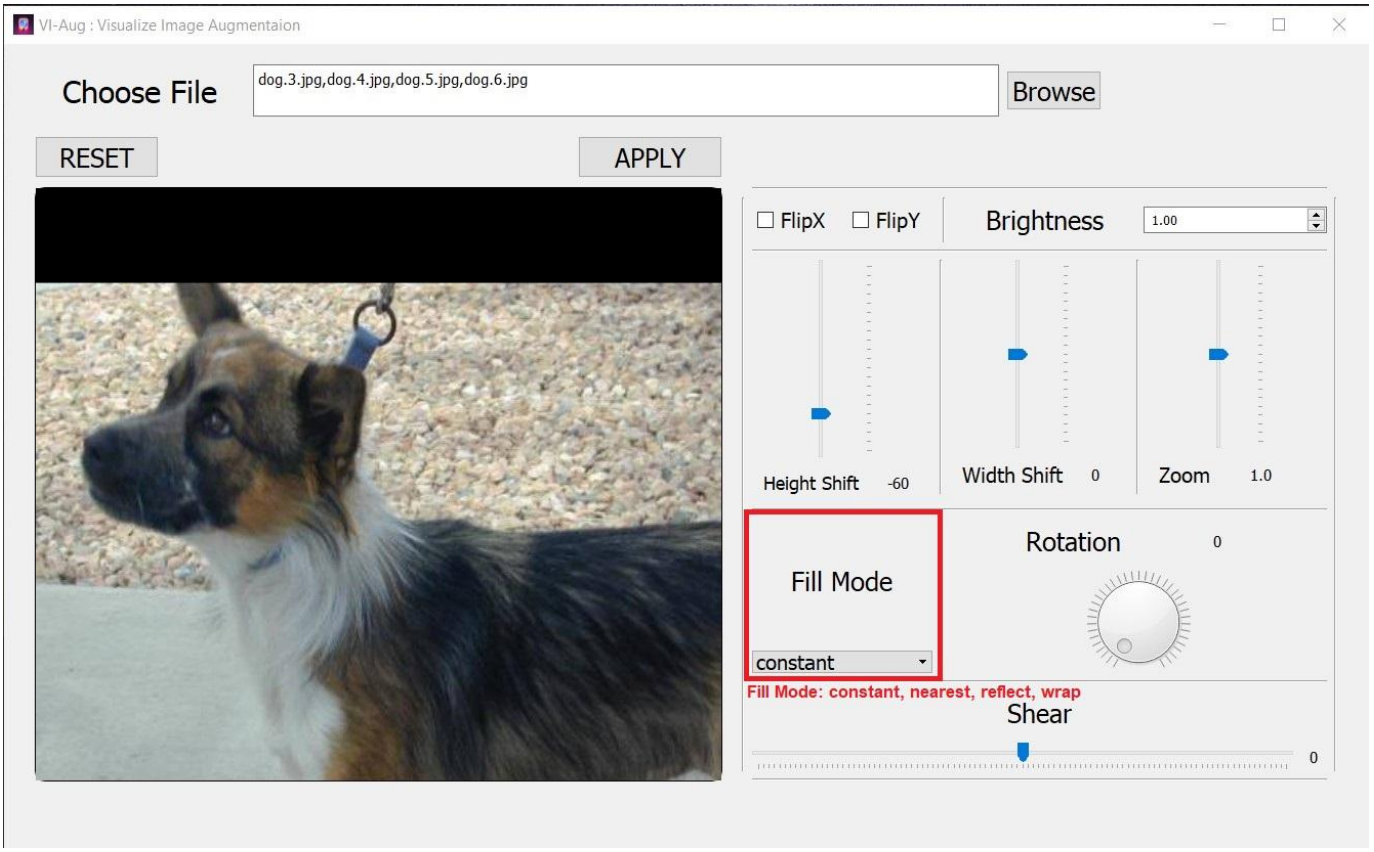
Width Shift : Move Image Horizontally.



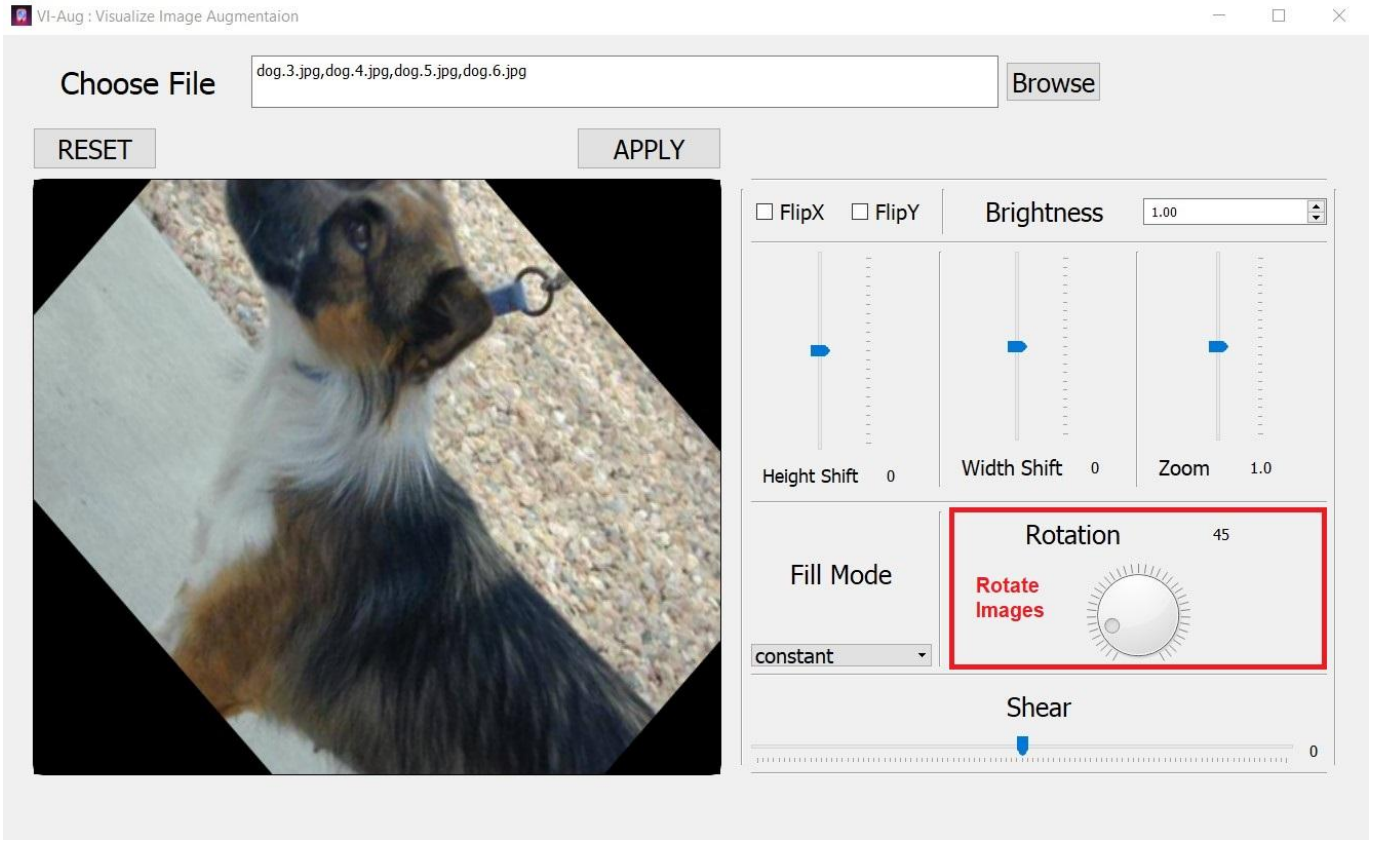
Zoom : Zoom in or Zoom out.



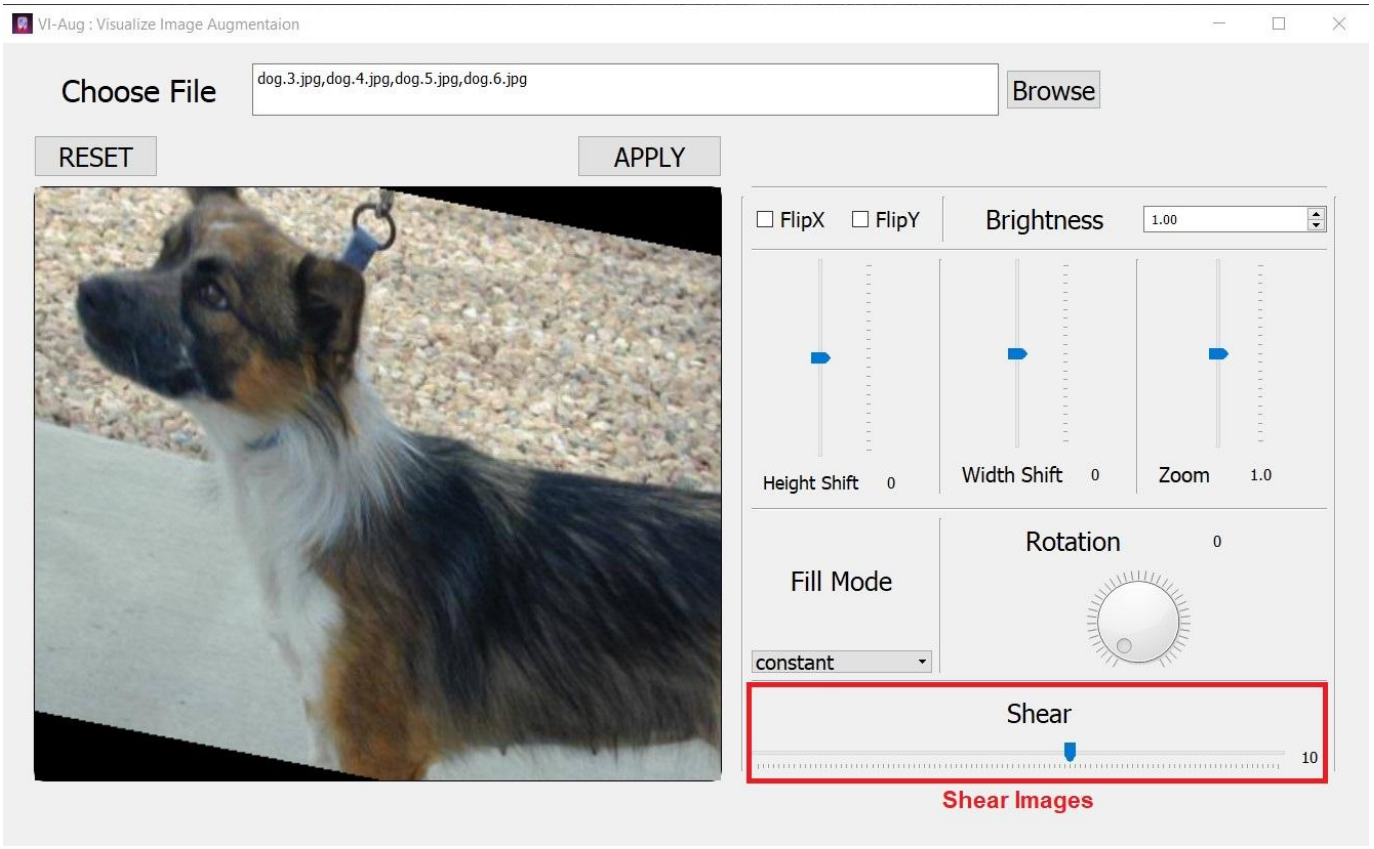
Fillmode: Select fill options.



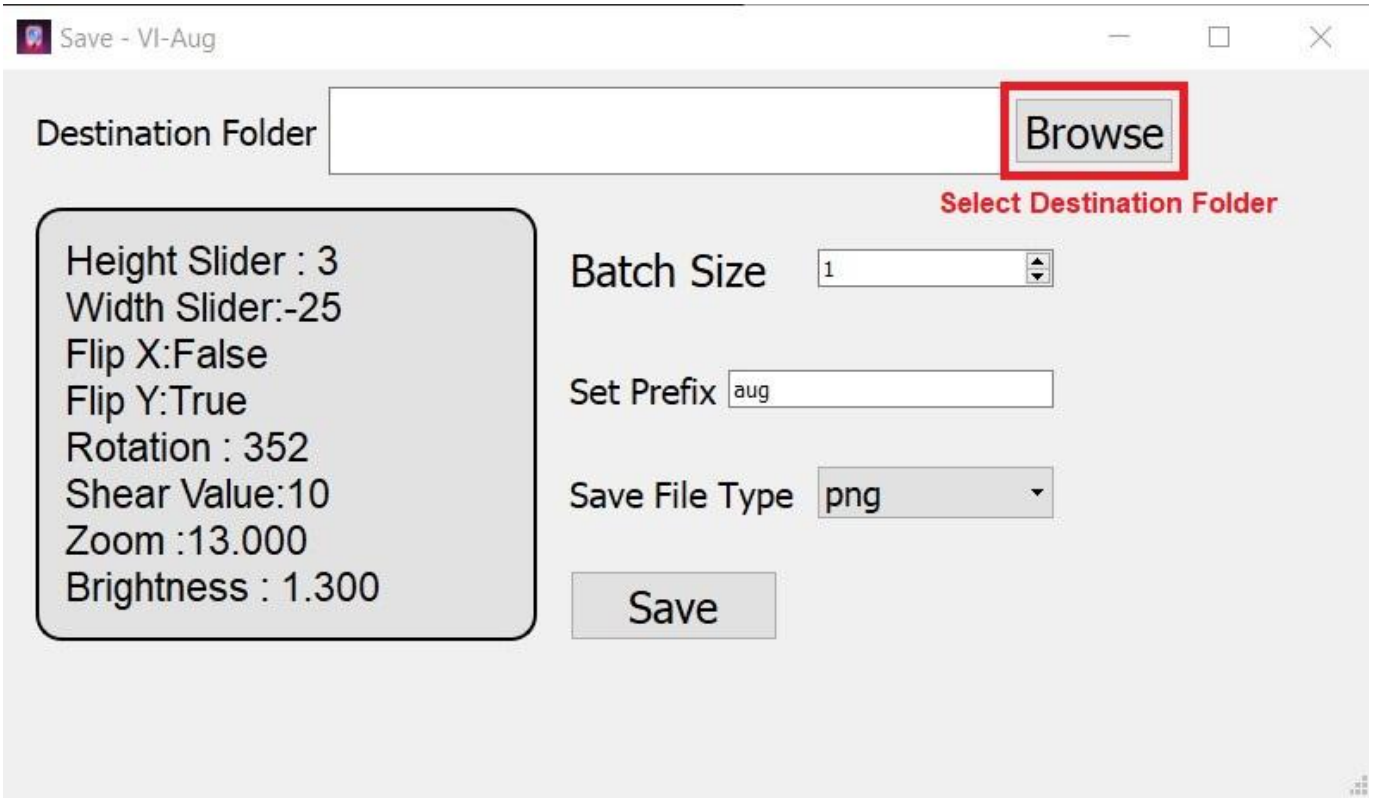
Rotation: Rotate the Image 0º to 360º.

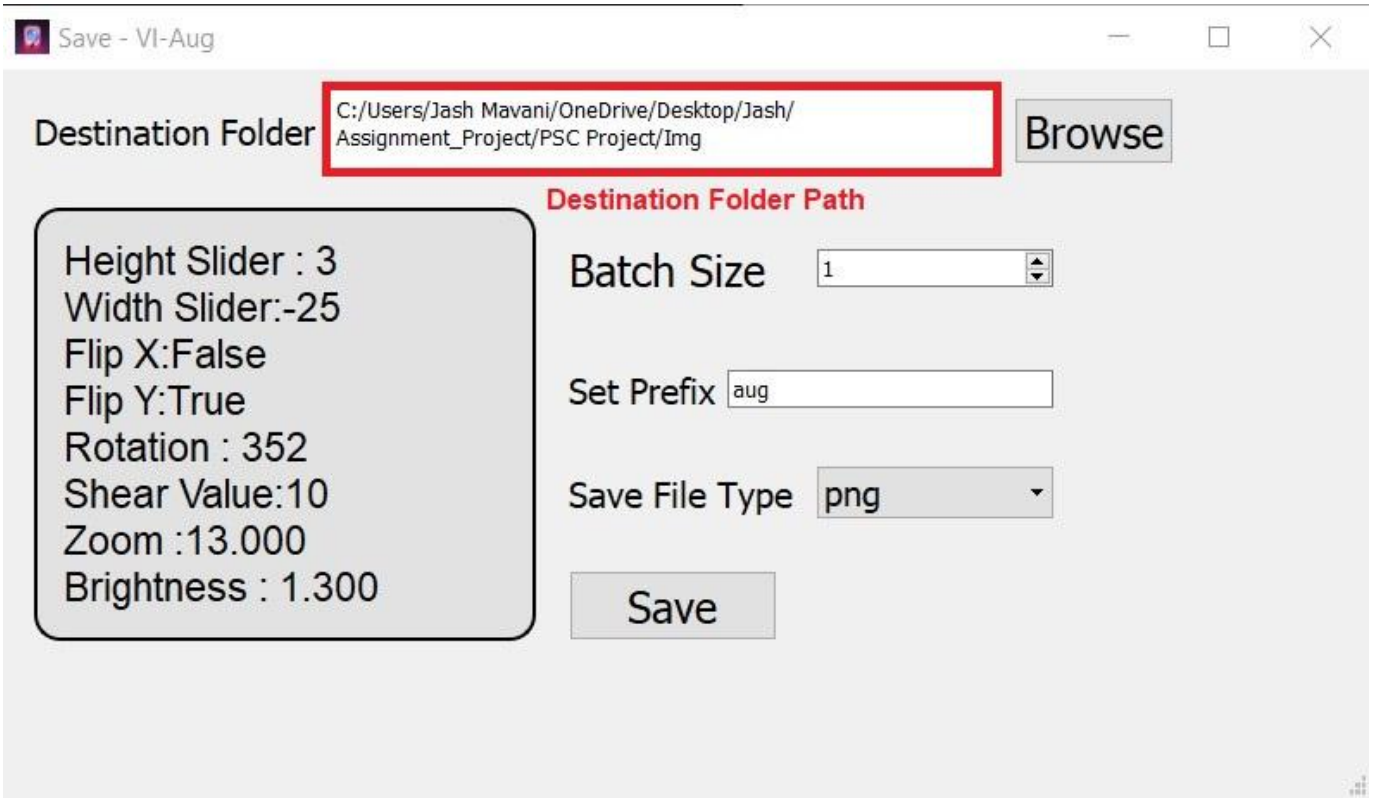


Shear **:** Stretch image horizontally.

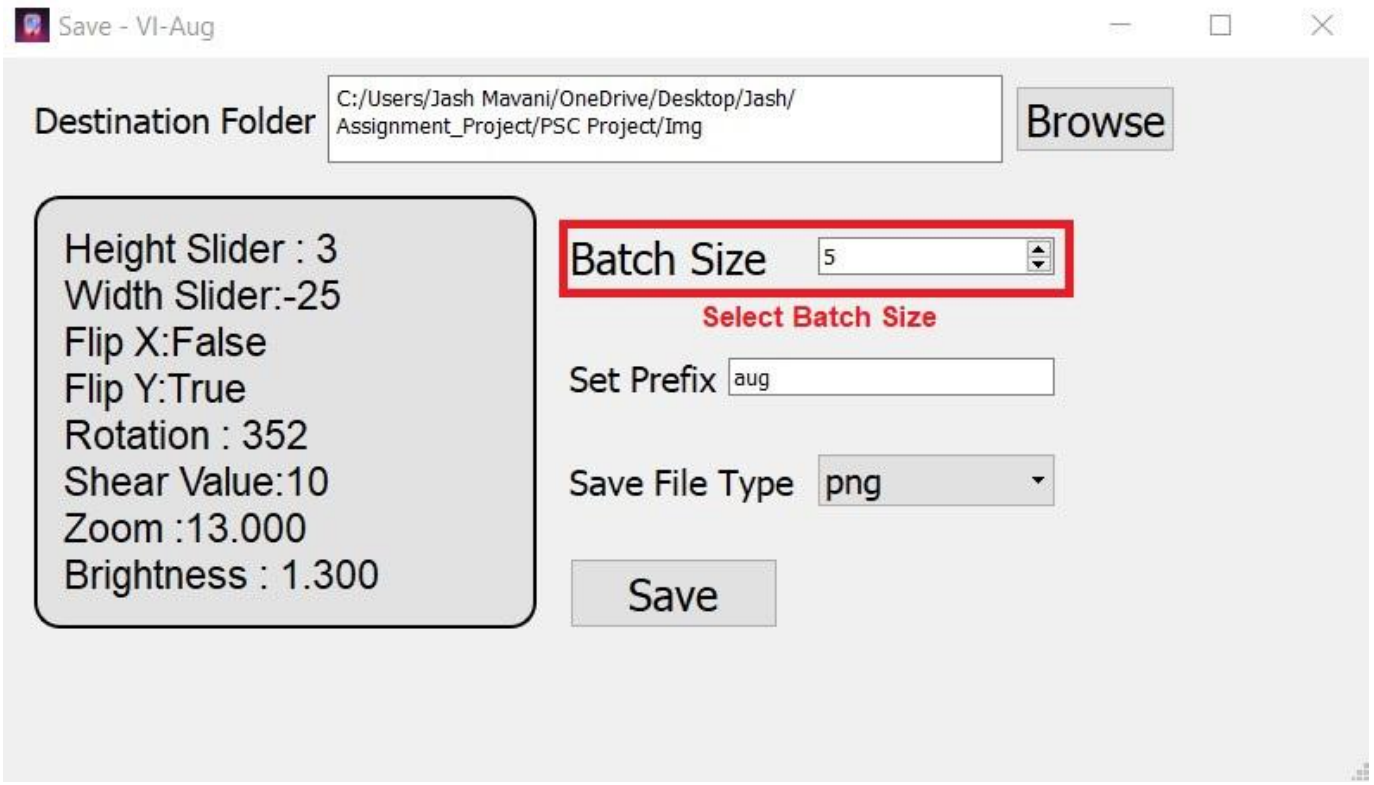


Browse: Select Destination Folder.

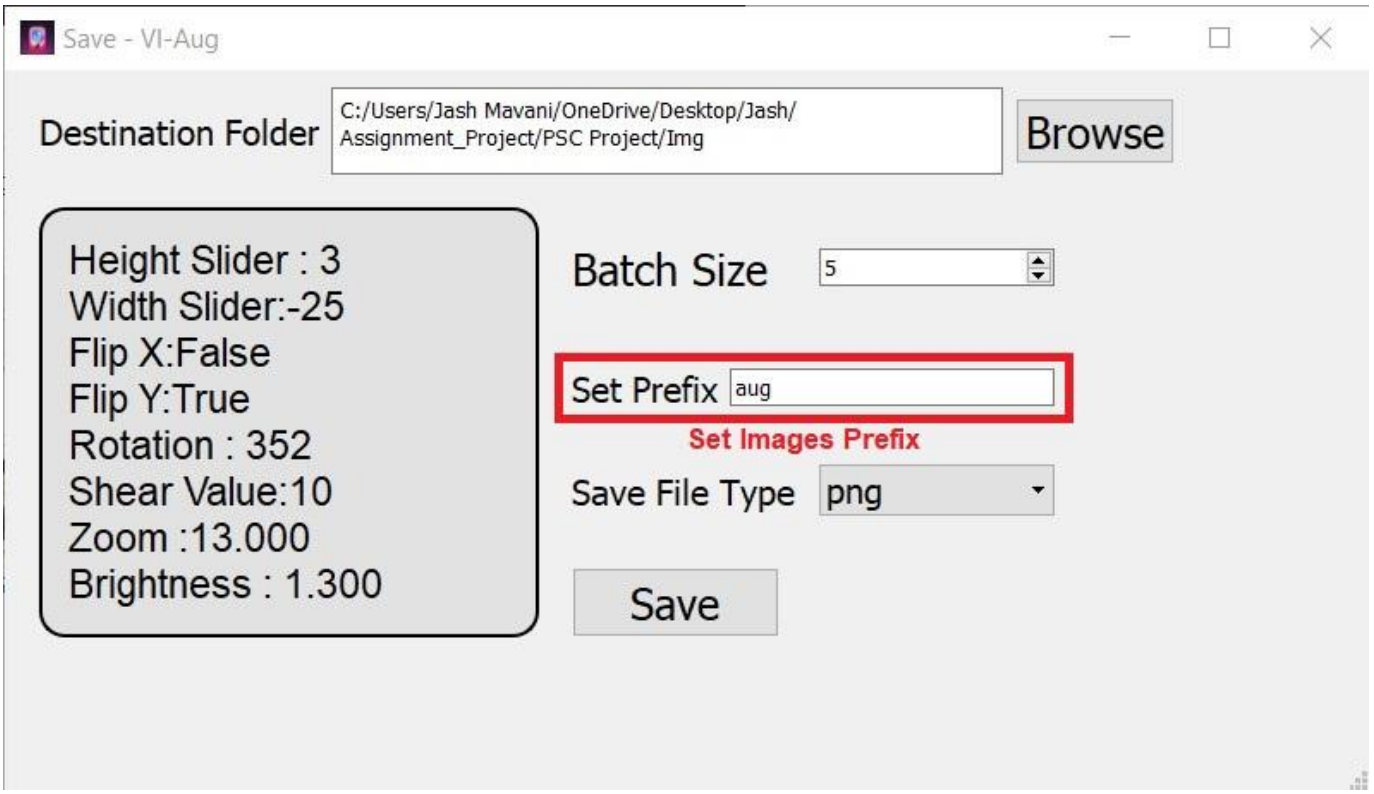




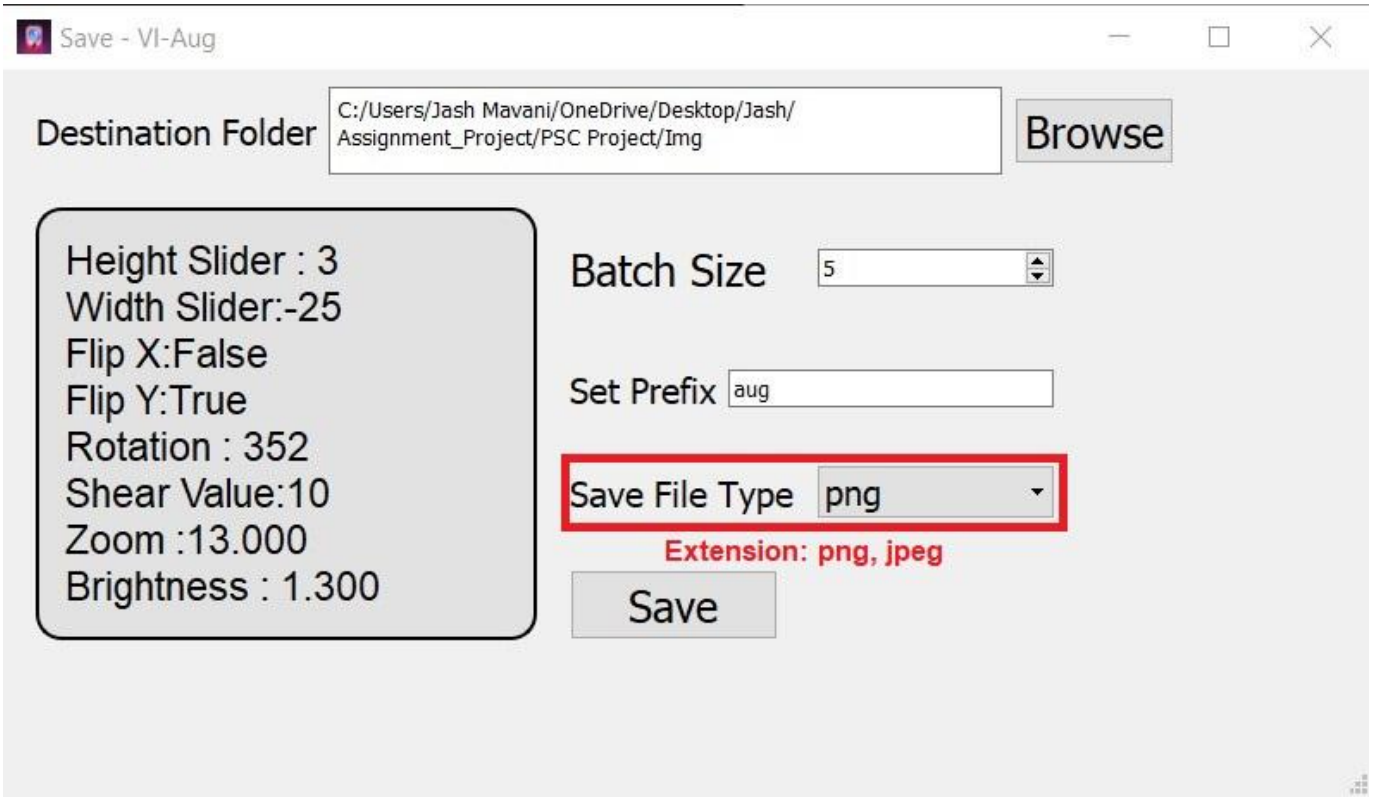
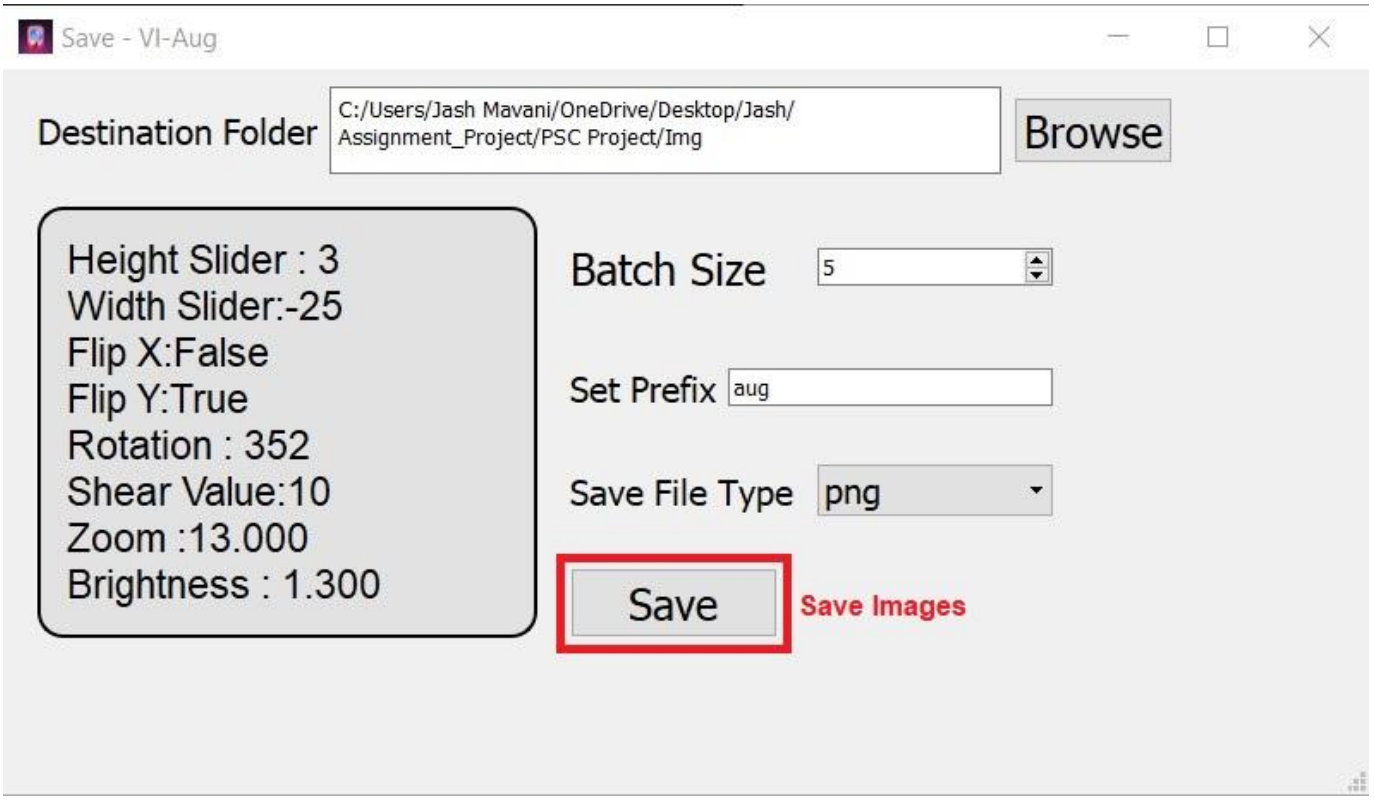
Batch Size : Select batch size for each photo to augment.



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