Dataset Introduction Gaze360

File Structure

```
Gaze360
    |
    |-Label
    |   |
    |   |-val.label
    |   |-unused.label
    |   |-train.label
    |   |-test.label
    |
    |-Image
        |
        |-val
        |-unused
        |-train
        |-test
            |-face
            |-left
            |-right
                |-1.jpg
                |-2.jpg
                |   .
                |   .
                |   .
```

`.label` File Format

Each `.label` file contains the data of one subject. Each line contains the data of one image. The first line in `.label` file is the name of contained variables. Variables are separated by space. As for variables contain more than one value. values are separated by `,`.

- `Face` - `string` - Path of normalized face image relative to `../Image/` .
- `Left` - `string` - Path of normalized left eye image relative to `../Image/` .
- `Right` - `string` - Path of normalized right eye image relative to `../Image/` .
- `Origin` - `string` - Indicate the original image.
- `3DGaze` - `(3,)` - Ground truth of 3D gaze direction vector.
- `2DGaze` - `(2,)` - Ground truth of 2D gaze direction vector *i.e.* yaw and pitch.

Geting Start.

You could read the line in `.label` file for reading image data.

Assuming the root path is `/home/Gaze360`. You could:

```
import os
import cv2

# line; One line in `.label` file.
imroot = '/home/Gaze360'

face_path = os.path.join(imroot, 'Image', line.split(' ')[0])
left_path = os.path.join(imroot, 'Image', line.split(' ')[1])
right_path = os.path.join(imroot, 'Image', line.split(' ')[2])


face_image = cv2.imread(face_path)
left_image = cv2.imread(left_path)
right_image = cv2.imread(right_path)

label = line.strip().split(' ')[4].split(",")
label = np.array(label).astype('float')
```