Dataset Introduction ETH-XGaze

File Structure

```
ETH-Gaze
     |
     |-Label
     |   |
     |   |-train.label
     |   |-test.label
     |
     |-Image
         |
         |-train
         |-test
            |-{subject}
                  |-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/` .
- `gaze` - `(2,)` - Ground truth of normalized 2D head orientation vector *i.e.* pitch and yaw. **Note that, the order is different with other processed dataset!**
- `head` - `(2,)` - head pose.
- `origin` - `string` - Path of the original image in the original dataset.
- `cam_index` - `int` - Index of the camera that used to capture this frame.
- `frame_index` - `int` - Index of the frame.
- `normmat` - `(9,)` - Matrix used to perform normalization.

Note that `test.label` does not have `gaze` notation for the original authors did not public labels of the test set. You should upload your result into the website provided by origin author to get performance.

Geting Start.

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

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

```
import os
import cv2

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

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

face_image = cv2.imread(face_path)

label = line.strip().split(' ')[1].split(",")
label = np.array(label).astype('float')
```