

Recommendations for Dataset of Facial Recognition System

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1. **Proper Distance and Angle** should be chosen while taking images:
 - ✓ Distance from which image is to be taken = 1.5 m
 - Angles:**
 - ✓ Straight into the camera (The camera and person should be in 180-degree line of sight)
 - ✓ 30 degrees Left
 - ✓ 30 degrees Right
 - ✓ 30 degrees Down
 - ✓ 30 degrees Up
 - ✓ w.r.t to the height of camera fixed
2. **Image Quality should be very good**, i.e pixels should not get scattered
3. Images are to be taken in **original mode** i.e no filters to be applied.
4. **There should be proper lighting on face** while taking the image. **Do not use the flash of mobile phone** for lighting purpose.
5. **If the person wears spectacles**, then his total **12 images are to be clicked** 6 with spectacles and 6 without spectacles (angle and distance remains same as in point 1).
6. Images should contain **full face (80%) and shoulders (20%)** of the person.
<http://vis-www.cs.umass.edu/lfw/#download>
7. **Avoid items** in the images **that can cover face** like mask, headbands etc.
8. Images should **only contain the person** to be recognized.
9. Ensure that images are sufficiently **high in resolution** (minimum: 640 x 480 up to maximum of 1920 x 1080).

10. **Background** in the images has to be **clear and light** in color (white).
11. **Lighting should be proper** in the images. They should not be taken in dark.
12. Use **color images**.
13. Use images with **neutral face expressions** with open eyes and closed mouth.
14. **Do not use images that are blurry** which might be clicked if the subject and camera are in motion.
15. Maintain **proper version control** of the dataset

References:

- <http://vis-www.cs.umass.edu/lfw/#download>
- <https://youtu.be/BcHszl5dtPo>
- <https://docs.aws.amazon.com/rekognition/latest/dg/recommendations-facial-input-images.html>

Correct Way





Incorrect Way (Although the dataset is close to guidelines, but point 6 not satisfied)



