

Report

In our experiment we measured how the amount of actors in database affects the outcome accuracy. We tested it by performing an experiment - we chose 4 actors and get 5 photos of each actor. We took care that selected photos do not appear in the database. Each photo has been changed to make it look like it has been received from the webcam. Each photo was transformed 5 independent times by pipeline:

- Add random number form $[-30, 30]$ to each pixel.
- Change contrast by scaling each pixel value to $255 * (I_{ij}/255)^{\gamma}$, where gamma is random number form $[0.7, 1.3]$.
- Degrade image quality by applying JPEG compression with random degree from $[60, 85]$.

To achieve this we used python library imgaug and finally got a collection of 100 photos. Whole collection was preprocessed 5 times, each time with different amount of actors (the values being 1000, 5000, 10000, 15000, all).



