CVIP

Computer Vision Image Processing tool

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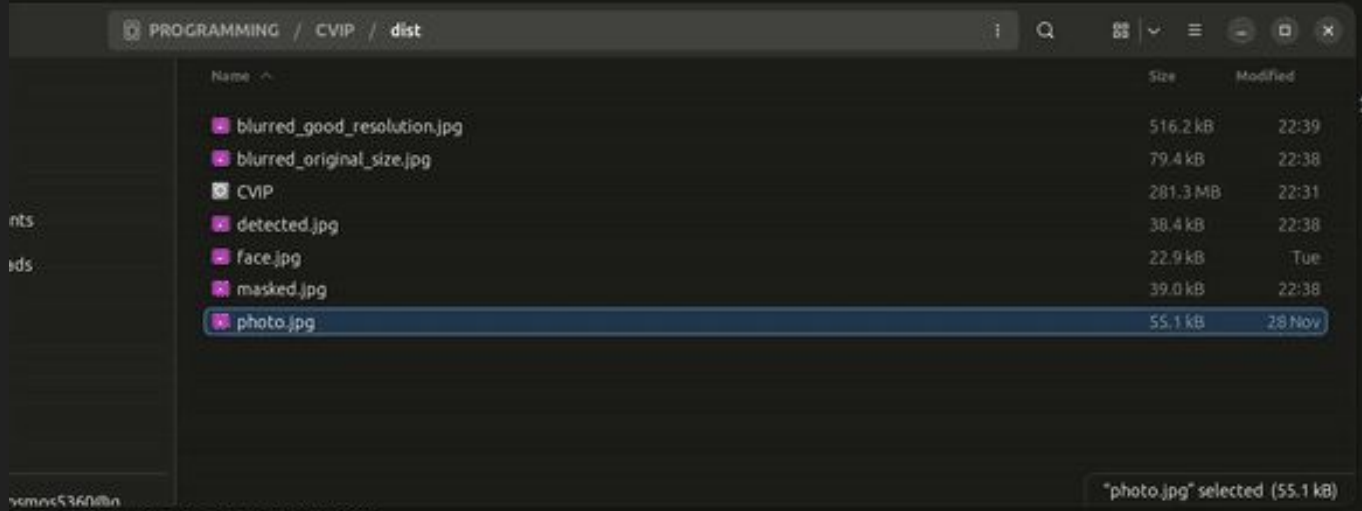
https://github.com/CV-goes-frr/CVIP

https://excessive-thunbergia-ddd.notion.site/f536a7e40ac9489498bd9c87c659670a?v=a1364363425498f82500a26abb024af&pvs=4

```
muren@murenus:/mnt/0BEC232041C8B872/CVIP/dist$ ./CVIP [-i=photo.jpg]crop:0:0:350:300[cropped][cropped]face_detection[-o=detected][cropped]mask:face.jpg[-o=masked][-i=photo.jpg]face_blur:5[-o=blurred_original_size][blurred_original_size]scale_to_resolution:1920:1080[-o=blurred_good_resolution] --parallel_processes=4
```

```
muren@murenus:/mnt/0BEC232041C88872/CVIP/dist$ ./CVIP [-i=photo.jpg]crop:0:0:350:300[cropped][cropped]face_detection[-o=detected][cropped]mask:face.jpg[-o=masked][-i=photo.jpg]face_blur:5[-o=blurred_original_size][blurred_original_size]scale_to_resolution:1920:1080[-o=blurred_good_resolution] --parallel_processes=4

Files with the following names will be created:
detected
masked
blurred_original_size
blurred_good_resolution


PROCESSING...

CROP IN PROGRESS...
Time elapsed: 4.935264587402344e-05

FACE DETECTION IN PROGRESS...
Time elapsed: 0.20304441452026367

CROP IN PROGRESS...
USING CACHE...
Time elapsed: 1.9550323486328125e-05
```




```
1), renderer: AMD Radeon Graphics (rembrand
```

```
TIME ELAPSED: 22.72114658355713
```

Let’s look closer at the prompt example:

./CVIP [-i=input_image.jpg]crop:0:0:1000:500[cropped][cropped]face_detection[-o=detected][cropped]mask:mask_filename.png[-o=masked]
[-i=input_image2.png]face_blur:5[-o=blurred_original_size][blurred_original_size]scale_to_resolution:1920:1080[-o=blurred_good_resolution]

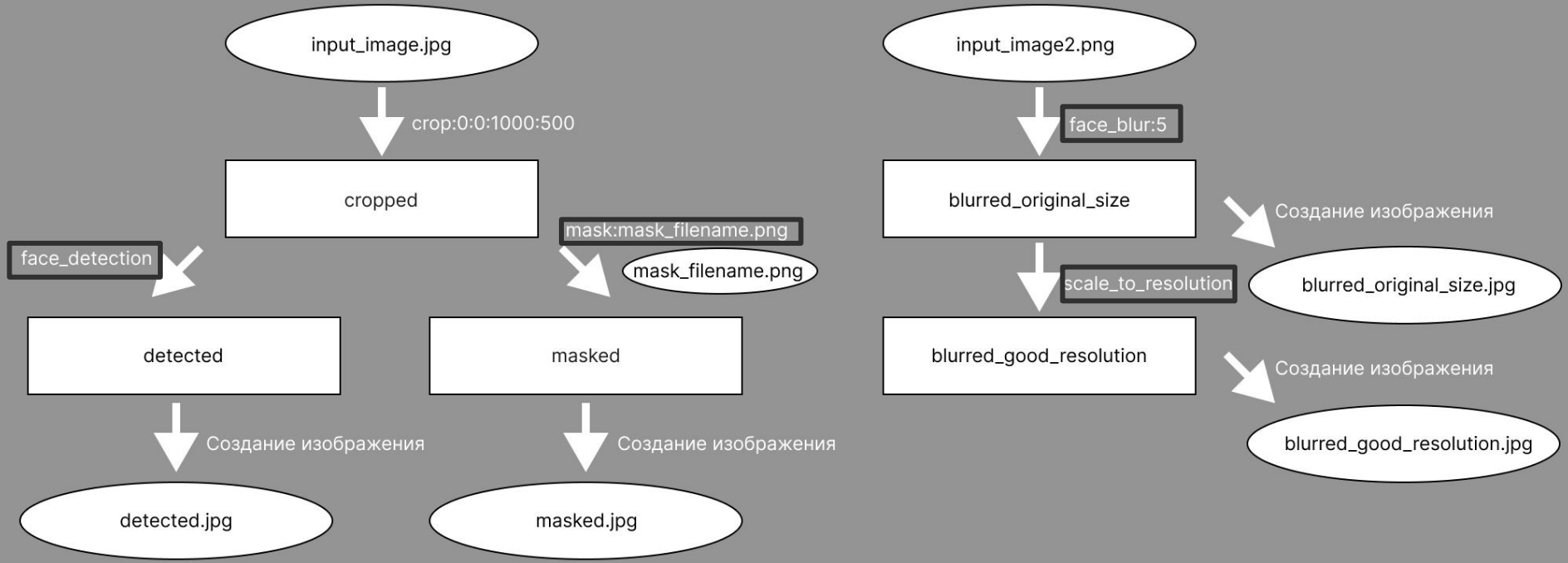
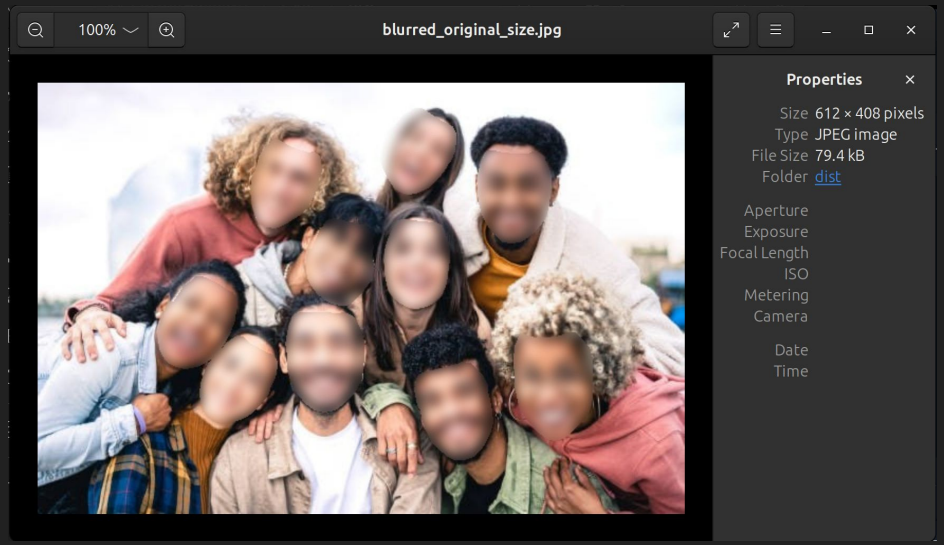
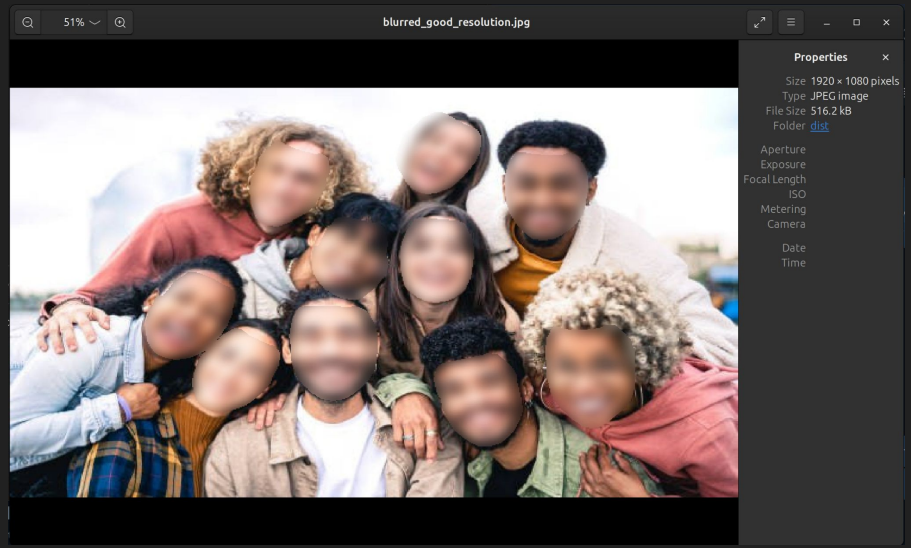


Image scaling

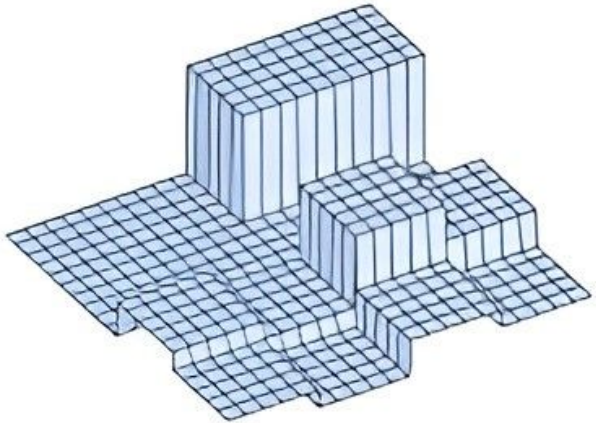


Original image

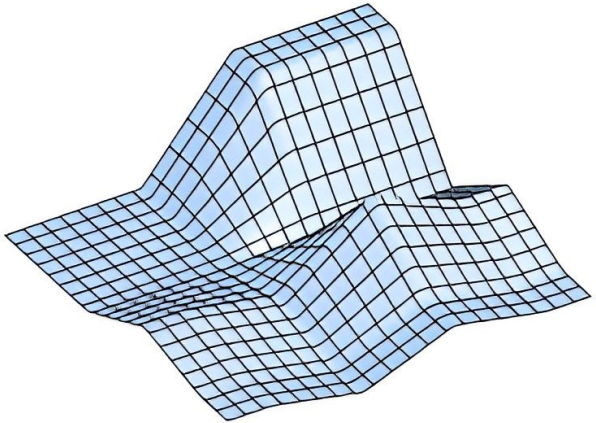


Resized image

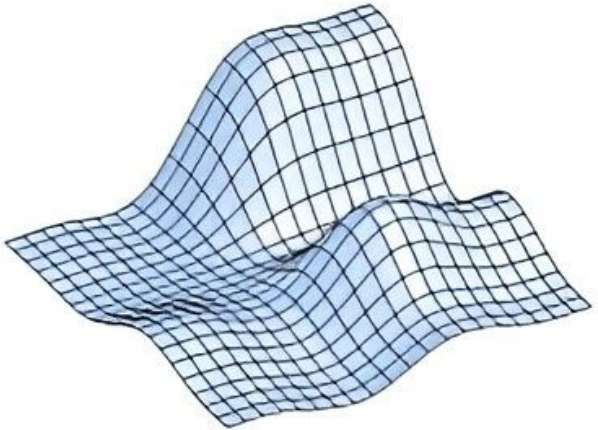
Interpolation



Nearest neighbors

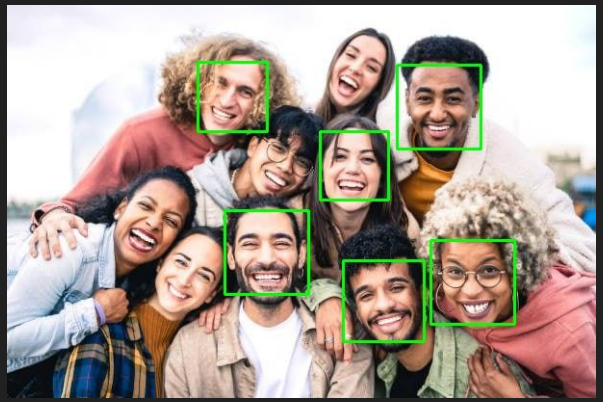


Bilinear interpolation

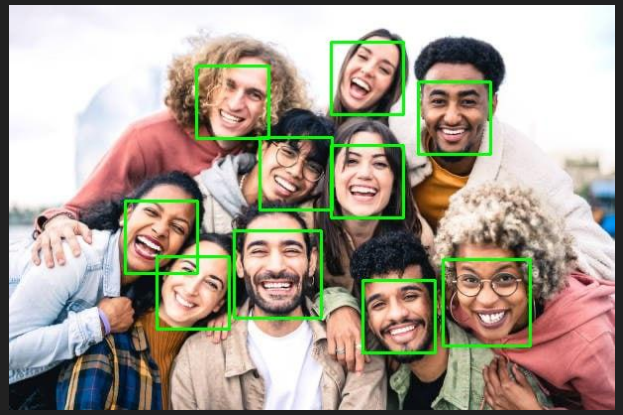


Bicubic interpolation

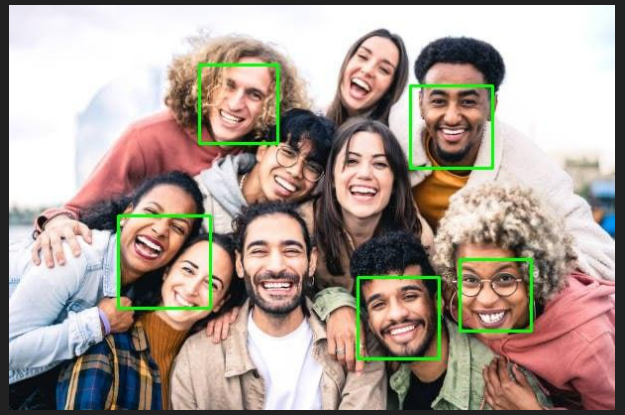
Models we've used for detection with comparison



Viola-Jones algorithm
with haarcascade

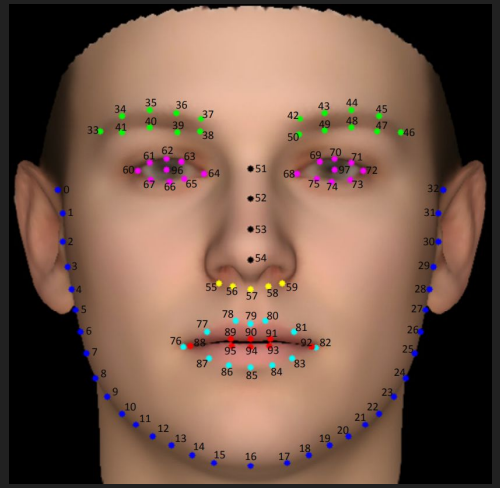


dlib

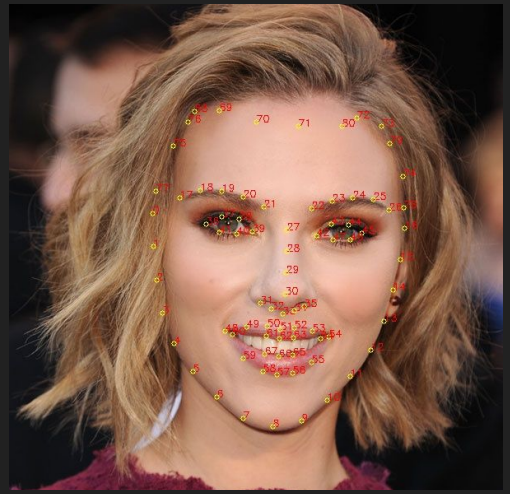


mediapipe
with blazeface

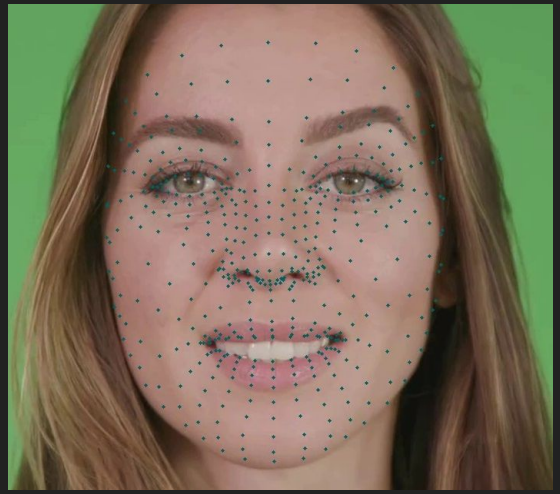
Face landmarks



dlib 68-points



dlib 81-points



blazeface 468-points

Face blur

Masking

Affine transformation