

Latex Practice

Vadim Khanin

HSE

July 2021

Content

Title Page

Content

Intro

Tasks And Solutions

Example of extracting skin color

Conclusion

Slides of the following presentation are remade from my presentation for coursework.

Subtasks and methods of their implementation

1. Split videos
into frames



```
▶ def  
  video_to_frames(path)
```

2. Detect and
extract the
skin on the
image



```
▶ def  
  extract_skin(image)
```

3. Extract
dominant color
on the image



```
▶ def  
  extract_dominant_color  
  (image,  
   number_of_colors=1  
   ,hasThresholding=False)
```

Extracting skin

Here is an example of extracing dominant color from the image.



Dynamic color range: (153, 106, 86)

Out[51]: <matplotlib.image.AxesImage at 0x2fa73cf15b0>



Conclusion and prospects for further work.

- The average differences between rgb values of dominant skin colors are lower for healthy people than for people, ill with phlebological diseases.
- The maximum deviation of rgb values of dominant skin colors is lower for healthy people than for people, ill with phlebological diseases.
- As a result, the average values of the real values were obtained for groups of patients and healthy people. This research shows, that these values differ among groups. Hence the algorithm may be useful in early noninvasive diagnosis of venous diseases.