


```
from google.colab import files
from IPython.display import Image
uploaded=files.upload()
```

 Choose Files No file chosen
enable.
Saving OTP.png to OTP.png

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```
import matplotlib.pyplot as plt
import cv2
from google.colab.patches import cv2_imshow
```

```
image_path = 'OIP.jpg'
```

```
image=cv2.imread(image_path)
cv2_imshow(image)
```



```
#Threshold based
gray=cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
#Set the threshold value threshold value
threshold value=120
```

```
#Threshold the image to create a binary image
_, binary_image = cv2.threshold(gray, threshold_value, 255, cv2.THRESH_BINARY)
cv2.imshow(binary_image)
```



```
#Watershed Algo
import numpy as np
gray = cv2.GaussianBlur(gray, (5,5), 0)

_, binary_image = cv2.threshold(gray, 0, 255, cv2.THRESH_BINARY | cv2.THRESH_OTSU)
kernel = np.ones((3,3),np.uint8)

opening = cv2.morphologyEx(binary_image, cv2.MORPH_OPEN, kernel, iterations=2)

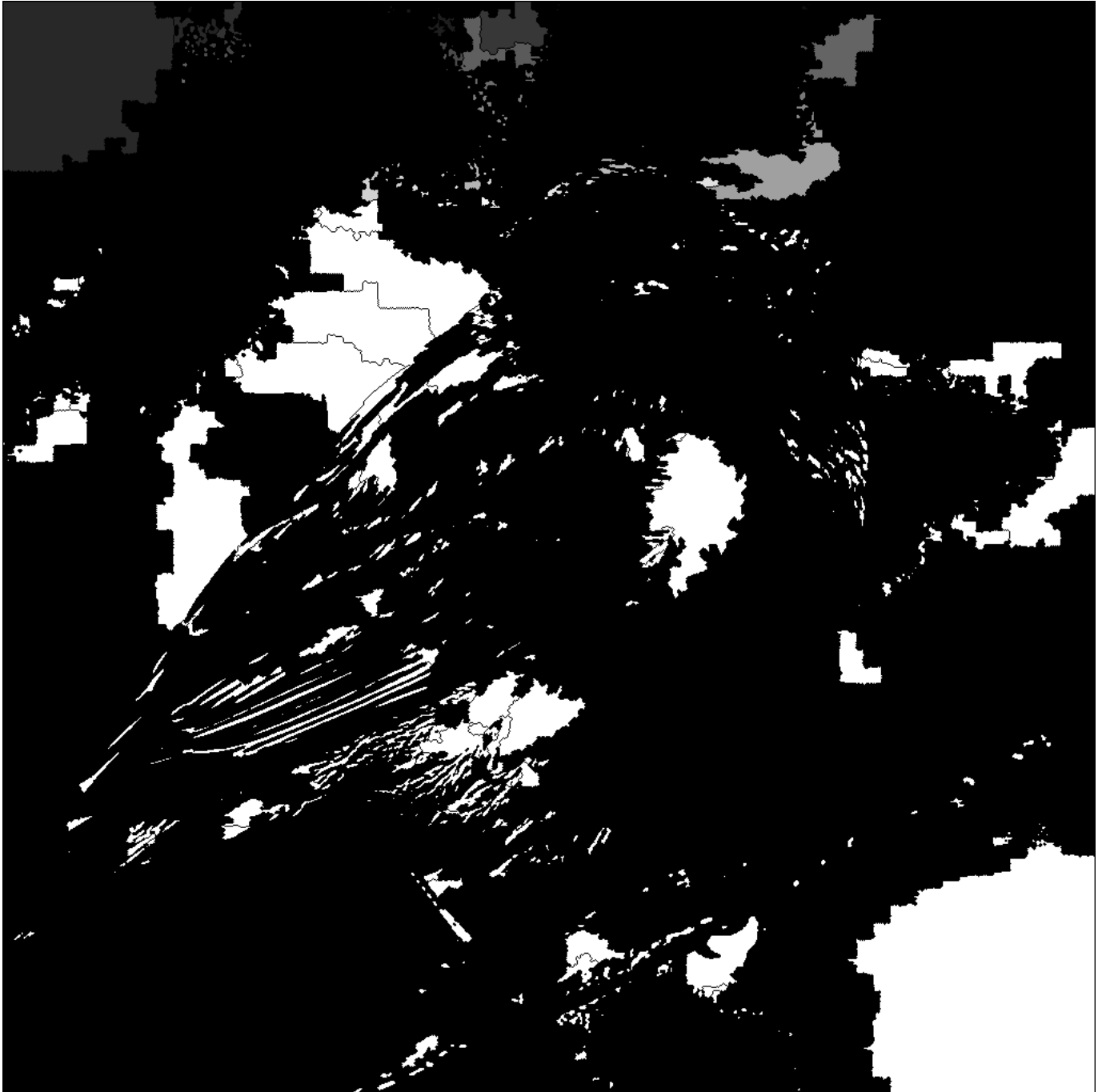
background_mask=cv2.dilate(opening,kernel,iterations=3)

foreground_mask=cv2.subtract(binary_image,opening)

_,markers=cv2.connectedComponents(foreground_mask)

markers += 1
```

```
markers[background_mask == 255] = 0  
  
segmentation=cv2.watershed(image,markers)  
cv2.imshow(segmentation)
```



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