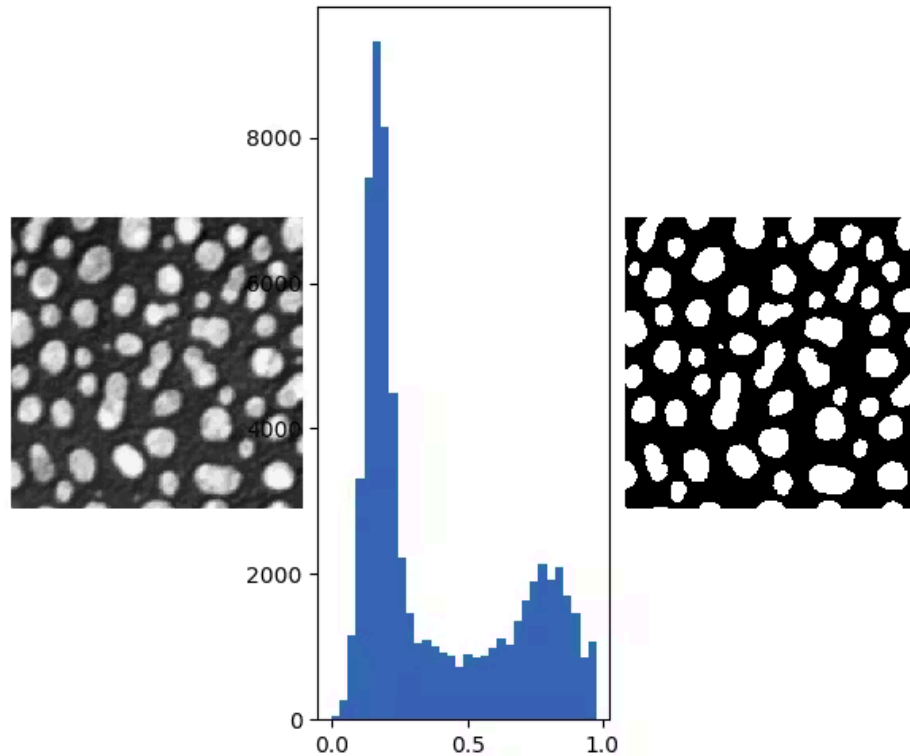


# Image Thresholding



collected

## Topics

- Image Thresholding
- Binary, BinaryInv,
- Trunc,
- ToZero and ToZeroInv Thresholding using openCV

# Image Thresholding

a technique that separates an image into a foreground and background by converting a grayscale image into a binary image

## How It Works?

- The intensity values of an image are compared against a threshold value.
- Pixels with intensity values above or below this threshold are categorized differently.

## Applications:

- Object detection,
- segmentation,
- edge detection
- image enhancement,
- pattern recognition

## Types of thresholding:

Global thresholding, adaptive thresholding, and Otsu's method

## Global Thresholding

### Syntax:

***cv2.threshold(gray\_img, threshold\_val, max\_val, threshold\_type)***

***max\_val*** - used only for binary and binary INV

***threshold\_type*** -

Binary >threshold (p\_val=max\_val); <=threshold (p\_val=0)

Binary INV >threshold (p\_val=0); <=threshold (p\_val=max\_val)

Trunc >threshold (p\_val=threshold); <=threshold (p\_val unchanged)

ToZero >threshold (p\_val unchanged); <=threshold (p\_val=0)

ToZero INV >threshold (p\_val=0/black); <=threshold (p\_val unchanged)