Quiz 1

Computer Vision

2.5 marks

Solving this quiz needs an image. Form it using your DOB in the following manner:

Let's say your DOB is following:

DOB: (D1)(D2) / (M1)(M2) / (Y1)(Y2)(Y3)(Y4)

Your image will be:

D1	D2	M1
Y4	5	M2
Y3	Y2	Y1

NOTE: Clearly mention the image matrix formed at the top of your answer sheet.

Q1) Compute LBP code for the central pixel of the image. **[0.5 marks]**

Q2) Compute the magnitude and angle of the gradient formed at the central pixel of the image using the following horizontal and vertical filters. **[0.5 mark]**

1	0	-1
1	0	-1
1	0	-1

1	1	1
0	0	0
-1	-1	-1

Q3) Compute the saliency map of the image by adding up the color distances of any pixel with other pixels. **[0.75 marks]**

Q4) Compute the Otsu threshold for the image. For computational ease, assume variance definition to be the following: **[0.75 mark]**

D/N

where

D= sum of absolute differences of instances with their mean

N= number of instances