Implementing EM for Gaussian mixtures

6 questions

1 point

1.
What is the weight that EM assigns to the first component after running the above codeblock?

0.300710230061

1 point

2.
Using the same set of results, obtain the mean that EM assigns the second component. What is the mean in the first dimension?

4.94239235298

1 point

3.
Using the same set of results, obtain the covariance that EM assigns the third component. What is the variance in the first dimension?

0.671149918972

1 point

4.
Is the loglikelihood plot monotonically increasing, monotonically decreasing, or neither?

- ○ Monotonically increasing
- ○ Monotonically decreasing
- ○ Neither

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1 point

5.
Calculate the likelihood (score) of the first image in our data set (img[0]) under each Gaussian component through a call to `multivariate_normal.pdf`. Given these values, what cluster assignment should we make for this image?

- ○ Cluster 0
- ○ Cluster 1
- ○ Cluster 2
- ○ Cluster 3

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1 point

6.
Which of the following images are **not** in the list of top 5 images in the first cluster?

- ☐ Image 1
- ☐ Image 2
- ☐ Image 3
- ☐ Image 4

- [ ] Image 5
- [ ] Image 6
- [ ] Image 7

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