edX

4. Mixture Model - Observed Case
Estimating the Parameters in the Observed Case

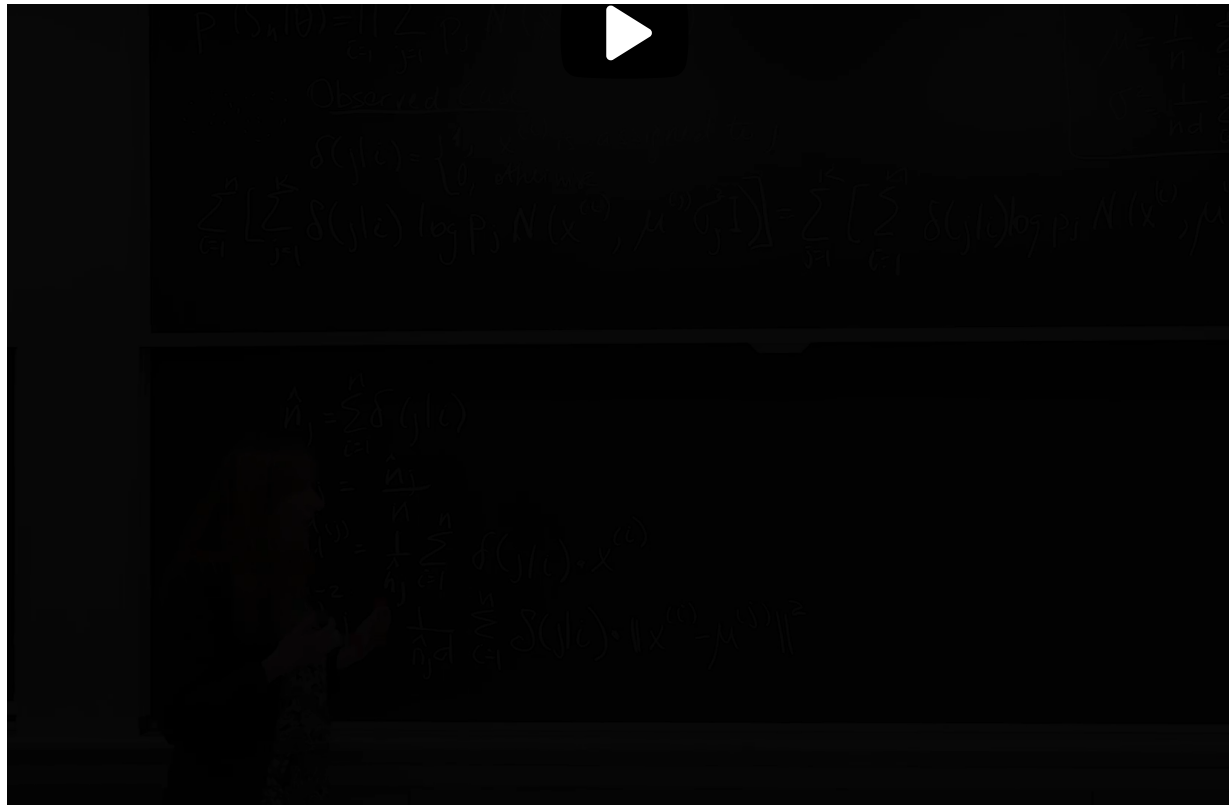that really belong

to this specific cluster.

So what I've done so far, I've demonstrated to you

how, given the observed case, when we know to which component

each point belong, I've demonstrated to you how

we can estimate all the parameters that we

need to define our mixture of Gaussian.

End of transcript. Skip to the start.

▶   10:22 / 10:22   ▶   1.50x   🔊   ⤢   CC   ❝

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Observed Case: An Example Problem

4/4 points (graded)

Let $K = 2$ and let $[-1.2 \ -0.8]^T$, $[-1 \ -1.2]^T$, $[-0.8 \ -0.8]^T$ be three observed points in cluster 1 and $[1.2 \ 0.8]^T$, $[1 \ 1.2]^T$, $[0.8 \ 0.8]^T$ be three observed points in cluster 2.

What are the means of the two clusters?

$\mu_{1,1} =$

| -1 |

✔ **Answer: -1**

$\mu_{1,2} =$

| -1 |

✔ **Answer: -1**

$\mu_{2,1} =$

| 1 |

✔ **Answer: 1**

$\mu_{2,2} =$

| 1 |

✔ **Answer: 1**

Solution:

The means of the two clusters are computed as the average of the points in each cluster, which evaluate to $\begin{bmatrix} -1 & -1 \end{bmatrix}^T$ and $\begin{bmatrix} 1 & 1 \end{bmatrix}^T$.

Submit	You have used 2 of 2 attempts

ℹ   Answers are displayed within the problem

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Topic: Unit 4 Unsupervised Learning (2 weeks) :Lecture 16. Mixture Models; EM algorithm / 4. Mixture Model - Observed Case

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[Staff] Answer for u_1,2 and mu_2,2

discussion posted a day ago by **weliu**

I think mu_1,2 = (-0.8-1.2-0.8)/3 = -0.9333? Please correct me if I missing something?

This post is visible to everyone.

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7 responses

+

★

...

MarkBowles   **+**

a day ago

                                                                                                                                  ...

I also have the same problem

                                                                                                                                  ...

However, you can guess what they wanted the problem to be and then infer the "right" answer.

Major: Data Science, Minor: Mentalism

posted a day ago by **Stepako**

                                                                                                                                  ...

not sure I understand what can we infer other than the answer shown above?

posted about 22 hours ago by **nbourbon**

                                                                                                                                  ...

The problem looks like someone tried to design an exercise with integer answers (and failed). Assuming they succeeded you get the accepted answer.

However, reading the mind of the TA and correcting their mistake should probably not be part of the problem. :D

posted about 15 hours ago by **Stepako**

                                                                                                                                  ...

You mean -0.933 ~> -1 ?

posted about 9 hours ago by **nbourbon**

Add a comment

knut1402

a day ago

Can we have this fixed pls? with attempts resets as well pls

Same issue here.

posted a day ago by **Martlll**

Add a comment

nbourbon

about 22 hours ago

I'm assuming that mu_1,2 means cluster 1, second dimension. unless it's written the otherway around and that's why the correct answers are not accepted?

Add a comment

cqwu55

about 20 hours ago

+

...

It sure would help if the subscripts are clearly specified by the problem. I saved my answer and wait.

Add a comment

ieyasu2014

about 14 hours ago

+

...

I also have the same problem.

Add a comment

SniperWolf787

about 12 hours ago

+

...

same here

But as I am a mentalist, if you round your answer to the nearest integer, you will have green marks :)))

posted about 12 hours ago by **SniperWolf787**

Add a comment

michael_x

about 10 hours ago

+

...

@Stepako and @SniperWolf787 are right.

I just rounded the answers to the nearest integers **for the reason I don't understand**, and I got the green marks

Thank you

...

So you replaced -0.933 with -1?

posted about 9 hours ago by **nbourbon**

...

it worked for me now.. if you somehow replace -0.9333 with -1 then you get the right mark

posted about 6 hours ago by **nbourbon**

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