
Subject: Re: Segregating data in bimodal distribution
Posted by [Jeremy Bailin](#) on Wed, 03 Aug 2011 15:37:36 GMT
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On 8/3/11 8:35 AM, Eric Hudson wrote:

> Hi,
>
> Is anyone aware of an IDL implemented algorithm for segregating data
> in a bimodal distribution into two groups?
>
> My data is such that I could do it manually (make a histogram, decide
> on a threshold between the two peaks in the histogram, then pull out
> the data above and below that into two separate groups). There isn't
> a true gap between the two peaks, but they are pretty well separated.
> The part which is non-obvious to me is to how to programmatically
> choose the threshold value. And since I have to do this on many data
> sets, where the threshold is going to be different for each, I prefer
> to not do it manually.
>
> Thanks,
> Eric
>
> PS In searching I found something called the KMM algorithm which
> seems like it would work, but I haven't found code for it.

Are the peaks well-represented by a known function (e.g. Gaussian)? If so, you could fit a bimodal Gaussian/whatever to the distribution and use the parameters of the fit to determine when the total is dominated by one or the other peak.

-Jeremy.

Subject: Re: Segregating data in bimodal distribution
Posted by [ben.bighair](#) on Sun, 07 Aug 2011 14:01:22 GMT
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Hi,

On 8/3/11 11:37 AM, Jeremy Bailin wrote:

> On 8/3/11 8:35 AM, Eric Hudson wrote:
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> by one or the other peak.

A while back I translated some MatLab code to do this sort of thing. I never got it to run very fast but it seemed to do pretty well. If I rightly recall, I think it performed well when the peaks overlapped a lot.

You can find a copy of it here...

http://dl.dropbox.com/u/8433654/mb_mixg.pro

Note there are some obscure references and an example routine...

```
IDL> .compile mb_mixg
IDL> example
Threshold Selected =      132.47748
```

Cheers,
Ben

Subject: Re: Segregating data in bimodal distribution
Posted by [Eric Hudson](#) on Wed, 10 Aug 2011 11:59:45 GMT
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> http://dl.dropbox.com/u/8433654/mb_mixg.pro
>
> Note there are some obscure references and an example routine...

Wow, that is exactly what I needed. The example even looks like my data.

Thanks so much,
Eric

Subject: Re: Segregating data in bimodal distribution
Posted by [wulf.hendrik](#) on Wed, 22 Feb 2017 14:30:34 GMT
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On Sunday, August 7, 2011 at 4:01:22 PM UTC+2, ben.bighair wrote:

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>
>
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> Note there are some obscure references and an example routine...
>
> IDL> .compile mb_mixg
> IDL> example
> Threshold Selected = 132.47748
>
> Cheers,
> Ben

Hi Ben,

do you still have the original Matlab code?

best,
Hendrik
