2019年7月14日 22:30

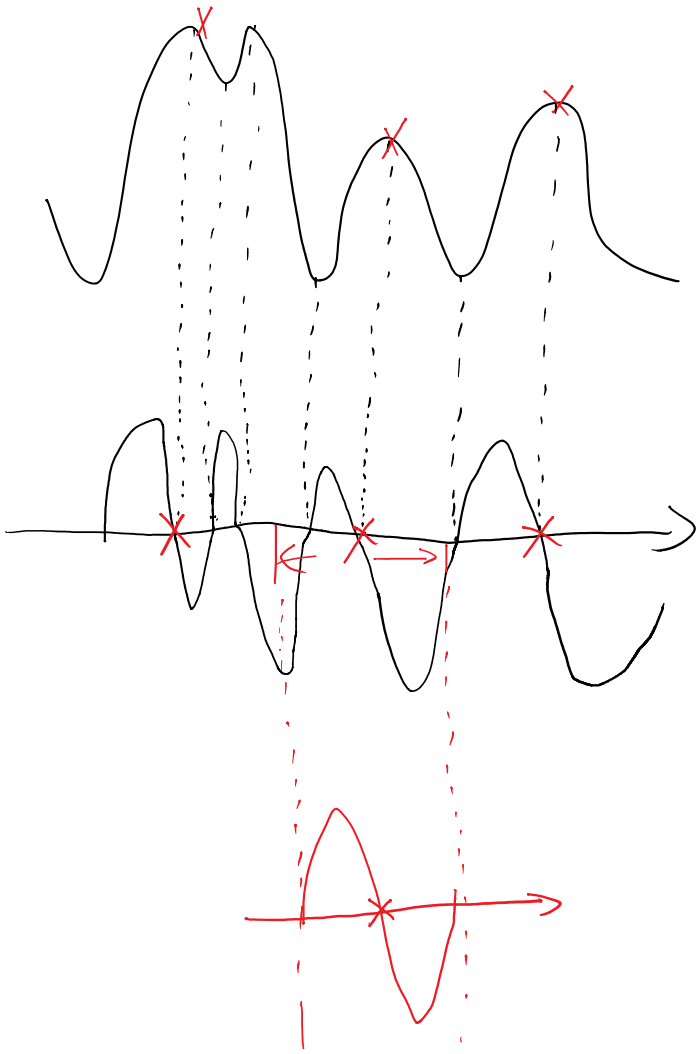
I hope to convince myself that GAN is really needed in this problem.

I have been working on GAN since yesterday but I can't help thinking about the complexity of this problem.

I mean that doctors can easily determine sharp peaks and mild ones by clear rules: derivative.

GMM is simple and effective, but it has some cases where it cannot fit the density curve well.

If we consider peak detection again:



First we can find all the obvious peaks
(using off the rack algorithms)
We can stipulate the nearest peak distance

Then we probe for a pre-set distance from each peak
On the derivative curve

Can be the nearest peak distance above

We find the maximum absolute value of the derivative
And use this to identify if it is a sharp peak
The peak position we have known in the first step

If this cannot classify correctly then human may as well be confused.