CS5014 Machine Learning

Lecture 9 Nonlinear models and regularisation

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Response to last poll

1. How do you think about the level of difficulty of maths ?

🔵	too easy	0
🟠	easy to follow	1
🟢	challenging but manageable	10
🔴	too hard	2

2. Speed of delivery?

🔵	Too slow	0
🟠	can be faster	0
🟢	good	9
🔴	can be slower	3
🟣	Too fast	1

Maths

Do I need to read all the maths on the slides *during lecture* ?
- **NO**! follow the logic is more important
- *esp.* when I jump slides (most likely technical details)
  - e.g. "take the derivative and set it to zero", just believe me for the time being
  - might left there for your reference (I will make sure it is clear)
- catch the key message
  - the conclusion: e.g. *MLE* leads to least square

BUT **YES** verify them after the lecture step by step
- no way to learn CS or maths modules just by attending lectures

Feel free to stop me during the lecture
- when you cannot follow the logic: highly likely I have messed something up
- when the notation is confusing: still possibly my bad
  - I used σ for both sigmoid and variance (σ^2) of Gaussian
  - or like $\prod p_i^{I(x=i)}$, if you do not know what I does..