

COMP9444 Neural Networks and Deep Learning

Quiz 2 (Variations on Backprop)

This is an optional quiz to test your understanding of the material from Week 3.

1. Write the formulas for these three error functions: squared error, cross entropy, softmax (remember to define any variables you use).
 2. Write the formula for Bayes' Rule, in terms of a cause A and an effect B.
 3. In the context of supervised learning, explain the difference between Maximum Likelihood estimation and Bayesian inference.
 4. Briefly explain the concept of momentum, as an enhancement for gradient descent.
 5. Sketch the following activation functions, and write their formula: sigmoid, tanh, ReLU.
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Make sure you try answering the Questions yourself, before checking the [Sample Answers](#)