Artificial Intelligence

Assignment-2(Machine Learning)

Artificial Neural Network(ANN)

Youtube Link: https://youtu.be/qRTgdldcMu8

Learning of neural network

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Option 2: Hinton's classic 1986 Nature paper, presented in an Urdu vlog on YT.

Overview of video and concept:

We are going to make a video related to learning of neural network with the help of backpropagation by using gradient descent. This method was presented by **Geoffrey E. Hinton, David E. Rumelhart**, and **Ronal J. Williams.** We will explain the concept learning of neural networks in the Urdu language to make this very easily understandable to our audience and try to give our point of view about asking questions. In this video, we have a neuron network that gives some output and will compare it with the desired output to check how close it is. Then, we will find the error and take it to the input layer with the help of the backpropagation method adjust each weight as well, and reduce the cost by using the gradient descent approach. In this way, the aim is to get the weight vector by which we can get the result almost equal or close to the desired value. The whole procedure will tell us that the change in weights will affect the output of the neuron network, the change in output of the neuron network will affect the activation function, and the change in activation function will affect the cost function which is equal to the change in weights will effect on cost function. At the end, some updated or adjusted weights will be added to the old weights to get the new weights. **W(new) = W(old) + Delta W.** It will continue till gets the close value to the desired value.

Reference link:
https://www.youtube.com/watch?v=UTfQwTuri8Y&ab_channel=TensorFlow