

Q1. ANN, neurons, weighted, brain, biased, activation function, nonlinear, training, topology

Q2. HERE: SVM is a linear machine whose goal is to construct an optimal hyperplane such that the marginal separation is the maximum between the decision boundaries. The decision boundaries are drawn parallel to the hyperplane which just push the datapoints closest to the hyperplane. The datapoints closer to the hyperplane are called support vectors.

Q3. $w = [\text{random number between } -1 \text{ and } 1]$ for every data in training set { In the first layer: calculate the weighted sum using adder function calculate the output of the activation function In the output layer calculate the output y calculate the error $e = d - y$; d - desired output change the weights using the formula $\Delta w = \eta x_j e_j$ } continue till the error converges

Q4. Something-Something WEIGHT

Q5. 1. Convolution or matrix multiplication: it produces output to hidden layer 2. Deconvolution matrix multiplication by transpose matrix: apply back propagation error for output to input. 3. Weight update: apply back propagation error from output to weight.