

Important Questions

- Why not approach classification through regression [Link](#)
- Linear vs Logistic regression ?
- CRF Vs HMMs?
- What is maximum likelihood estimates?
- What is Expectation-Maximization algorithm (EM Algorithm)? Can it be used for regression or classification ? Does it always converge?
- How SVM work? What are kernels in SVM
- Decision Tree globally or locally optimal? How to avoid overfitting in decision trees [good blog](#)
- MultiCollinearity ? Why bad ? How to detect? How to handle? [Link](#)
- L1 vs L2 regularization. What are differences? Which is better ? Can they be termed as feature selection or reduction techniques? [Nice Blog](#)
- Optimizations functions in Deep learning ?
- When to use which feature scaling ?
- Similarity measures in Machine learning [Nice blog](#)
- Need of Negative sampling and hierarchical softmax in skip gram based word2vec [Nice Video1](#) [Nice Video2](#)
- Why Weight initialization ways are important in DNN? Vanishing Gradients and Exploding gradients ?
- Why high dimensionality is a curse?
- what is advantage of higher grams and what is their disadvantage? probability of finding higher grams in test set is less.
- Are features also sampled in Random Forest ? what makes them better than Decision trees?
- How to reduce overfitting without regularization(by processing data)
- strategies to handle imbalanced data
- What happens when no. of features are greater than no. of samples?
- Is random weight assignment better than assigning same weights to the units in the hidden layer?
- Integer encoding vs one hot encoding vs dummy encoding. When to use which? [Blog](#)
- Why we use exponentiation in softmax activation function instead can we not just divide logit by sum of logits? [check why](#)
- Why softmax is computationally complex?

- Which is easy Regression or Classification? Why?