ANN (Artificial Neural Network): Multilayer perceptron/neuron se 3 types of layers: ip, hidden, output. Computation only in hidden and op layer. Forward prop, calc loss, back prop.

Types: CNN, RNN

CNN: convolution and pooling operations ke through frwrd prop, loss nikalega and then weight ki jagah filters will get updated. Filters are shared amongst diff inputs.

RNN (Recurrent neural network): har level ka output will become to next level. Parameters/weight are shared.

Ex LSTM: we have used many to one bcs input setnces se we r predicting cyberbullying ha ya nahi

2 layers ha, 64 nurons in every layer at each timestamp

Sequential/ timestamp vale data me we use LSTM i.e. here the input sentence is divided into words that will be given as input at each timestamp.

LSTM can work on diff sizes of input

RNN ki short term memry htoi ha so bada sentce ha agar to first word and last word of sntnce me reltn nahi bataya jaa skta so Long hogayi STM in LSTM. Isme 2 gates extra hote ha: forget gate, update gate and extra c value is generated. Output gate toh phle bhi tha hi

If bidrctional LSTM: front se end bhi jaynge i.e. current output is input for next layer and then back means current oupt is iput to prev layer

Random forest:

Multiple dec trees se jo output aayega usme se we will find via majority voting. Here 100 trees