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BATCH – 5 (Ai & Ml)

Assignment - 2

How can you implement a regression model in an ANN?

The purpose of using Artificial Neural Networks for Regression over Linear Regression is that the linear regression can only learn the linear relationship between the features and target and therefore cannot learn the complex non-linear relationship. In order to learn the complex non-linear relationship between the features and target, we are in need of other techniques. One of those techniques is to use Artificial Neural Networks. Artificial Neural Networks have the ability to learn the complex relationship between the features and target due to the presence of activation function in each layer.

Deep ANNs work great when you have a good amount of data available for learning. For small datasets with less than 50K records, I will recommend using the supervised ML models like Random Forests, Adaboosts, XGBoosts, etc.

The simple reason behind this is the high complexity and large computations of ANN. It is not worth it, if you can achieve the same accuracy with a faster and simpler model.

You look at deep learning ANNs only when you have a large amount of data available and the other algorithms are failing or do not fit for the task.

A common mistake when configuring a neural network is to first normalize the data before splitting the data.