

Introduction to Machine Learning Algorithm

① AI vs ML vs DL vs DS.

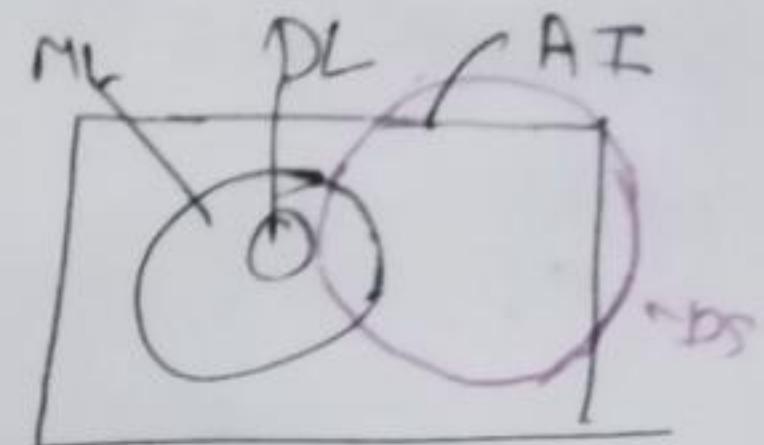
AI - It can do its task without any human intervention

ex - Netflix, self Driving car, Amazon.

ML - start tool analyze, visualize forecast, prediction

DL - To mimic human Brain
Multi layered Neural Network

DS - which play multiple role.



ML and DL.

Supervised ML - A machine learning method where the model is trained on labeled data (Input + Correct O/P) to learn pattern and predict output for new data.

Independent feature Dependent feature

Age Weight: \rightarrow O/P feature

New Age \rightarrow Hypothesis \rightarrow Prediction
 \rightarrow Weight

types —

Classification - Predict categorical.

Regression - Predict Number.

No. of study No. of play hr. No. of sleep O/P or fail
— — — Pass / Fail
— — — Fail Classification

e.g - Location House size O/P price
— — — regression Continuous
Xth Xth Linear Regression

ML Algorithm

① Regression

Linear Reg.

Lasso & Ridge.

Precision Tree Reg.

Random forest Reg.

Xg boost

ANN

RNN

Classification

Logistic

Same
as class.

ANN, CNN

unsupervised learning — ML method using unlabeled data to find hidden pattern or grouping without predefined output.

Clustering

Grouping → finding Relation.

Association

Algo — KMean ; DBScan.