Resources - click here

DAY 01

@learn.machinelearning

What to do

Learn Python (Syntax, Keywords, Variables, Datatypes, Input & Output, Operators, Control flow, Loops, List, Tuple, Dictionary, Sets, Strings)

Resources - click here

DAY 02

@learn.machinelearning

What to do

Learn Python (Functions, Modules, Packages, Object oriented programming)

Resources - click here

DAY 03

@learn.machinelearning

What to do

Learn Numpy (Basic Functionalities, Matrix operations)

Resources - click here

DAY 04

@learn.machinelearning

What to do

Learn Pandas (Basic Functionalities, Playing with dummy dataset)

Resources - click here

DAY 05

@learn.machinelearning

What to do

Learn Linear algebra (Why LA, What is scalar, Vector, Matrix, Tensor, Unit vector, Dot product, Equation of line, Trnspose, Inverse, Determinant of a matrix)

Resources - click here

DAY 06

@learn.machinelearning

What to do

Learn Linear algebra (Equation of line, Eigenvalues & Eigenvectors)

Resources - click here

DAY 07

@learn.machinelearning

What to do

Learn Statistics (Why statistics for Machine learning?, Mean, Mode, Median, Probability density function, Cummulative distribution function, Gaussian/normal distribution, Symmetric distribution)

Resources - click here

DAY 08

@learn.machinelearning

What to do

Learn Statistics (Kurtosis, Standard normal variate, Standardization, Normalization, Kernel density estimation, Central limit theorem)

Resources - click here

DAY 09

@learn.machinelearning

What to do

Learn Statistics (Q-Q Plot, Different types of distribution and why and how we need to use them, Discrete and continious uniform distributions, Bernoulli and Binomial)

Resources - click here

DAY 10

@learn.machinelearning

What to do

Learn Statistics (Lognormal, Power-Law distribution, Box-Cox transform, Covariance)

Resources - click here

DAY 11

@learn.machinelearning

What to do

Learn Statistics (Pearson Correlation coefficient, Spearman Rank correlation coefficient, Correlation vs Causation, How to use them??, Confidence interval)

Resources - click here

DAY 1 2

@learn.machinelearning

What to do

Learn Statistics (Bootstrapping, Confidence interval using bootstrapping, Hypothesis testing)

Resources - click here

DAY 13

@learn.machinelearning

What to do

Learn Statistics (Resampling and permutation test, K-S test for similarity of two distributions)

Resources - click here

DAY 14

@learn.machinelearning

What to do

Learn Statistics (Learn why statistics is important for data science, Where exactly we will use the concepts we learned, Try to apply these concepts on a problem and understand them)

Resources - click here

DAY 15

@learn.machinelearning

What to do

Learn about Dimensionality reduction and PCA

Resources - click here

DAY 16

@learn.machinelearning

What to do

Learn what exactly Machine learning and Artificial intelligence are? How Machine learning helps to achieve AI? Different types of learning algorithms in ML

Resources - click here

DAY 17

@learn.machinelearning

What to do

Learn in-depth about Supervised learning, Unsupervised learning, Semi-supervised learning and Reinforcement learning

Resources - click here

DAY 18

@learn.machinelearning

What to do

Learn EDA techniques like (Scatter plot, pair plots, PDF plots, CDF plots, Mean, Median, Standard deviation, Percentiles and Quantiles) and how and why these are used.

Resources - click here

DAY 19

@learn.machinelearning

What to do

Learn EDA techniques like (IQR & MAD, Box-plot with whiskers, Violin plots, Summarizing plots, Univariate, Bivariate and Multivariate analysis, Contour Plot) and how and why these are used.

Resources - click here

DAY 20

@learn.machinelearning

What to do

Learn about T-SNE

Resources - click here

DAY 21

@learn.machinelearning

What to do

Learn Calculus (Maxima, Minima, Vector Calculus(Grad), Gradient descent, Learning rate, Loss function)

Resources - click here

DAY 22

@learn.machinelearning

What to do

Learn about Performance metrics for regression, classification and unsupervised learning

Resources - click here

DAY 2 | 3

@learn.machinelearning

What to do

You learned a lot of stuff till now. It’s time to focus on gaining hands-on skills. Try taking and dataset from kaggle and do some statistical analysis and EDA to gain insights and understand the data.

Resources - click here

DAY 24

@learn.machinelearning

What to do

Learn Gradient descent indetail and it’s variants

Resources - click here

DAY 25

@learn.machinelearning

What to do

Learn Linear regression

Resources - click here

DAY 26

@learn.machinelearning

What to do

Take a dataset and try to apply linear regression algorithm using any library you want or you can write code from scratch. And learn more about the parameters it has.

Resources - click here

DAY 27

@learn.machinelearning

What to do

Take a dataset and try to apply linear regression algorithm using any library you want or you can write code from scratch. And learn more about the parameters it has.

Resources - click here

DAY 28

@learn.machinelearning

What to do

Learn about Lasso and Ridge regression

Resources - click here

DAY 29

@learn.machinelearning

What to do

Practice what you learned about lasso and ridge regression on a dataset

Resources - click here

DAY 30

@learn.machinelearning

What to do

Learn about L1 & L2 regularizer and apply them in linear regression and see how the results are changing

Resources - click here

DAY 31

@learn.machinelearning

What to do

Learn about Logistic Regression

Resources - click here

DAY 32

@learn.machinelearning

What to do

Take a dataset and apply logistic regression on that and play around with it.

Resources - click here

DAY 33

@learn.machinelearning

What to do

Learn about hyperparameter tuning and apply that on linear regression and logistic regression and check whether performance change is there are not.

Resources - click here

DAY 3 4

@learn.machinelearning

What to do

Apply what you learned about hyperparameter tuning on linear regression and logistic regression and check whether performance change is there are not.

Resources - click here

DAY 35

@learn.machinelearning

What to do

Learn about KNN (k nearest neighbor)

Resources - click here

DAY 36

@learn.machinelearning

What to do

Practice how KNN works on different datasets (Classification and Regression) and apply hyperparameter tuning.

Resources - click here

DAY 37

@learn.machinelearning

What to do

Learn about outliers and their impact on KNN, Linear regression and logistic regression.

Resources - click here

DAY 38

@learn.machinelearning

What to do

Learn how to treat outliers

Resources - click here

DAY 39

@learn.machinelearning

What to do

Learn how to handle categorical features

Resources - click here

DAY 40

@learn.machinelearning

What to do

Learn how to handle numerical features

Resources - click here

DAY 41

@learn.machinelearning

What to do

Try taking a dataset with both numerical and categorical features and apply different methods to those features and build a model. And check which method works best.

Resources - click here

DAY 4 | 2

@learn.machinelearning

What to do

Learn about bias-variance tradeoff

Resources - click here

DAY 4 | 3

@learn.machinelearning

What to do

Learn about best and worst cases of the algorithms

Resources - click here

DAY 4 4

@learn.machinelearning

What to do

Learn about train, test and validation dataset and their differences.

Resources - click here

DAY 4 5

@learn.machinelearning

What to do

Learn about importance of features and methods to select the best features.

Resources - click here

DAY 46

@learn.machinelearning

What to do

Learn about curse of dimensionality

Resources - click here

DAY 47

@learn.machinelearning

What to do

Learn SVM (support vector machines) algorithm.

Resources - click here

DAY 4 | 8

@learn.machinelearning

What to do

Learn about kernel trick, polynomial kernel and RBF kernel in SVM

Resources - click here

DAY 49

@learn.machinelearning

What to do

Learn about SVR (support vector regression)

Resources - click here

DAY 50

@learn.machinelearning

What to do

Practice what you learned SVM on a dataset + hyperparameter tuning

Resources - click here

DAY 51

@learn.machinelearning

What to do

Practice what you learned SVM on a dataset + hyperparameter tuning + regularization

Resources - click here

DAY 52

@learn.machinelearning

What to do

Practice what you learned SVR on a dataset + hyperparameter tuning + regularization

Resources - click here

DAY 53

@learn.machinelearning

What to do

Learn Conditional probability, Bayes theorem and Naive Bayes

Resources - click here

DAY 54

@learn.machinelearning

What to do

Take a toy dataset and apply Naive bayes algorithm from scratch

Resources - click here

DAY 5 5

@learn.machinelearning

What to do

Learn about Laplace/additive smooting of Naive Bayes

Resources - click here

DAY 5 6

@learn.machinelearning

What to do

Apply Naive bayes on imbalanced dataset, dataset with outliers and dataset with missing values + hyperparameter tuning + regularization

Resources - click here

DAY 5 7

@learn.machinelearning

What to do

Learn how to handle nemerical features using Naive bayes (Gaussian Naive Bayes)

Resources - click here

DAY 58

@learn.machinelearning

What to do

Learn the best and worst cases on Naive Bayes algorithm

Resources - click here

DAY 59

@learn.machinelearning

What to do

Learn about Entropy, Information gain / Gini impurity of Decision trees

Resources - click here

DAY 60

@learn.machinelearning

What to do

Take a small dataset and build decision tree from scratch

Resources - click here

DAY 61

@learn.machinelearning

What to do

Learn how decision tree works on numerical features

Resources - click here

DAY 62

@learn.machinelearning

What to do

Apply Decision trees on imbalanced dataset, dataset with outliers and dataset with missing values + hyperparameter tuning + regularization

Resources - click here

DAY 63

@learn.machinelearning

What to do

Learn about decision tree regressor and experiment it on a toy dataset

Resources - click here

DAY 64

@learn.machinelearning

What to do

Learn about Bootstrapped aggregation and Random forest

Resources - click here

DAY 65

@learn.machinelearning

What to do

Apply Random forest on imbalanced dataset, dataset with outliers and dataset with missing values + hyperparameter tuning + regularization

Resources - click here

DAY 6 6

@learn.machinelearning

What to do

Learn about Boosting and Gradient boosting

Resources - click here

DAY 6 | 7

@learn.machinelearning

What to do

Apply Gradient boosting on imbalanced dataset, dataset with outliers and dataset with missing values + hyperparameter tuning + regularization

Resources - click here

DAY 6 8

@learn.machinelearning

What to do

Learn about XGBoost and apply that on a toy dataset

Resources - click here

DAY 69

@learn.machinelearning

What to do

Learn about stacking models

Resources - click here

DAY 70

@learn.machinelearning

What to do

Apply what you learned about stacking models on a toy dataset

Resources - click here

DAY 71

@learn.machinelearning

What to do

Learn about Cascading models

Resources - click here

DAY 7 | 2

@learn.machinelearning

What to do

Apply what you learned about Cascading models on a toy dataset

Resources - click here

DAY 7 | 3

@learn.machinelearning

What to do

Learn what is clustering and Unsupervised learning

Resources - click here

DAY 7 4

@learn.machinelearning

What to do

Learn about K-Means algorithm

Resources - click here

DAY 75

@learn.machinelearning

What to do

Apply what you learned about K-Means algorithm on a toy dataset

Resources - click here

DAY 7 | 6

@learn.machinelearning

What to do

Learn about K-Means++ algorithm

Resources - click here

DAY 7 7

@learn.machinelearning

What to do

Apply what you learned about K-Means++ algorithm on a toy dataset

Resources - click here

DAY 7 | 8

@learn.machinelearning

What to do

Learn about K-Medoids algorithm

Resources - click here

DAY 7 9

@learn.machinelearning

What to do

Apply what you learned about K-Medoids algorithm on a toy dataset

Resources - click here

DAY 80

@learn.machinelearning

What to do

Learn about limitations of K-Means algorithm

Resources - click here

DAY 81

@learn.machinelearning

What to do

Learn about Agglomerative clustering algorithm

Resources - click here

DAY 8|2

@learn.machinelearning

What to do

Apply what you learned about Agglomerative clustering on a toy dataset

Resources - click here

DAY 8 | 3

@learn.machinelearning

What to do

Learn about Divisive clustering algorithm

Resources - click here

DAY 84

@learn.machinelearning

What to do

Apply what you learned about Divisive clustering algorithm on a toy dataset

Resources - click here

DAY 8 | 5

@learn.machinelearning

What to do

Learn about limitations of Hierarchical clustering algorithm

Resources - click here

DAY 8 6

@learn.machinelearning

What to do

Learn about DBScan algorithm

Resources - click here

DAY 8 | 7

@learn.machinelearning

What to do

Apply what you learned about DBScan algorithm on a toy dataset

Resources - click here

DAY 8 | 8

@learn.machinelearning

What to do

Learn about limitations of DBScan algorithm

Resources - click here

DAY 8 | 9

@learn.machinelearning

What to do

Learn more about feature engineering in depth - 1

Resources - click here

DAY 90

@learn.machinelearning

What to do

Learn more about feature engineering in depth - 2

Resources - click here

DAY 91

@learn.machinelearning

What to do

Learn more about feature engineering in depth - 3

Resources - click here

DAY 92

@learn.machinelearning

What to do

Learn more about feature engineering in depth - 4

Resources - click here

DAY 93

@learn.machinelearning

What to do

Learn how to deploy your ML models using flask and Django - 1

Resources - click here

DAY 94

@learn.machinelearning

What to do

Learn how to deploy your ML models using flask and Django - 2

Resources - click here

DAY 95

@learn.machinelearning

What to do

Learn how to deploy your ML models on cloud(AWS) - 1

Resources - click here

DAY 96

@learn.machinelearning

What to do

Learn how to deploy your ML models on cloud(AWS) - 2

Resources - click here

DAY 97

@learn.machinelearning

What to do

Learn how to deploy your ML models on cloud(GCP) - 1

Resources - click here

DAY 9 8

@learn.machinelearning

What to do

Learn how to deploy your ML models on cloud(GCP) - 2

Resources - click here

DAY 99

@learn.machinelearning

What to do

Learn how to deploy your ML models on cloud(Azure) - 1

Resources - click here

DAY 100

@learn.machinelearning

What to do

Learn how to deploy your ML models on cloud(Azure) - 2