



DATA SCIENCE & AI/ML

Duration: 80+ hrs

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ABOUT US

With 28+ years of expertise, Team of KM sets the standard for the Certified IT Technical / Functional, Management and Soft-skills/Behavioural Training's.

In KM, we train & build the human infrastructure that's essential for corporate success with cost-effective solutions that are customized for each client's needs.

KM meets the demands of today's fast-paced global business world and exceeds the expectations of clients and candidates. KM is an established provider of above solutions to enterprises across India and the globe.



ABOUT COURSE



Data Science can be stated as a study of data and information. Data is analysed in an elaborate manner and gradually transformed into a valuable resource that is further used for creating IT strategies. It can be further defined as a blend of data interference, algorithm development, and technology brought together to resolve complex issues. The process of mining a vast amount of structured and unstructured data to understand their respective patterns may help an organization in increasing its cost- effectiveness and efficiency. Further, it also helps in exploring various market opportunities and improving production output.

WHY DATA SCIENCE?

Data science is the field of applying advanced analytics techniques and scientific principles to extract valuable information from data for business decision-making, strategic planning and other uses.



What is a real life example of data ?

Let's take **Uber** as an example here. Uber generates and uses a huge amount of data regarding drivers, their vehicles, locations, every trip from every vehicle, etc. All this data is analyzed and then used to predict supply, demand, location of drivers, and fares that will be set for every trip.



What are the future applications of data science?

The Data Science future is studded with career opportunities. Future of Data Science 2030 is estimated to bring opportunities in various areas of banking, finance, insurance, entertainment, telecommunication, automobile, etc. A data scientist will help grow an organization by assisting them in making better decisions.



COURSE CURRICULUM

Module 1: Introduction to Data Science

- What is Data Science?
- What is Machine Learning?
- What is Deep Learning?
- What is AI?
- Data Analytics & it's types

Module 2: Introduction to Python

- What is Python?
- Why Python?
- Installing Python
- Python IDEs
- Jupyter Notebook Overview



Module 3: Python Basics

- Python Basic Data types
- Lists
- Slicing
- IF statements
- Loops
- Dictionaries
- Tuples
- Functions
- Array
- Selection by position & Labels

Module 4: Python Packages

- Pandas
- Numpy
- Sci-kit Learn
- Mat-plot library

Module 5: Importing data

- Reading CSV files
- Saving in Python data
- Loading Python data objects
- Writing data to CSV file

Module 6: Manipulating Data

- Selecting rows/observations
- Rounding Number
- Selecting columns/fields
- Merging data
- Data aggregation
- Data munging techniques



Module 7: Statistics Basics

Central Tendency

- Mean
- Median
- Mode
- Skewness
- Normal Distribution

Probability Basics

- What does it mean by probability?
- Types of Probability
- ODDS Ratio?

Standard Deviation

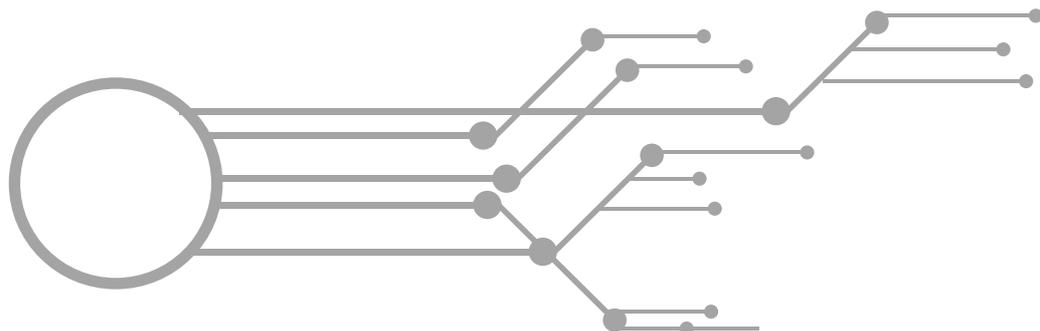
- Data deviation & distribution
- Variance

Bias variance Tradeoff

- Underfitting
- Overfitting

Distance metrics

- Euclidean Distance
- Manhattan Distance



Outlier analysis

- What is an Outlier?
- Inter Quartile Range
- Box & whisker plot
- Upper Whisker
- Lower Whisker
- Catter plot
- Cook's Distance

Missing Value treatments

- What is an NA?
- Central Imputation
- KNN imputation
- Dummification

Correlation

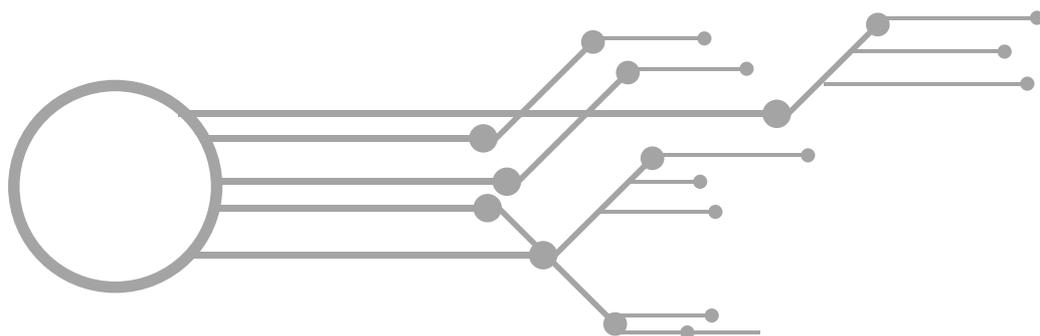
- Pearson correlation
- Positive & Negative correlation

Error Metrics

- Classification
- Confusion Matrix
- Precision
- Recall
- Specificity
- F1 Score

Regression

- MSE
- RMSE
- MAPE



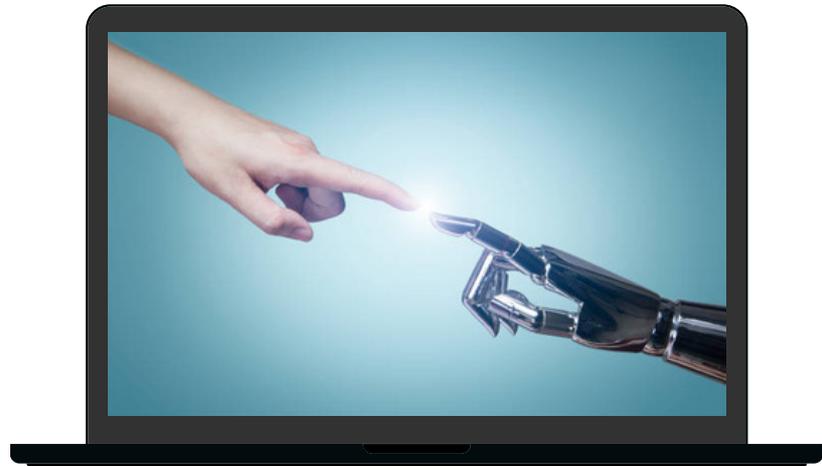
Module 8: Supervised Learning

Linear Regression

- Linear Equation
- Slope
- Intercept
- R square value

Logistic regression

- ODDS ratio
- Probability of success
- Probability of failure
- ROC curve
- Bias Variance Tradeoff

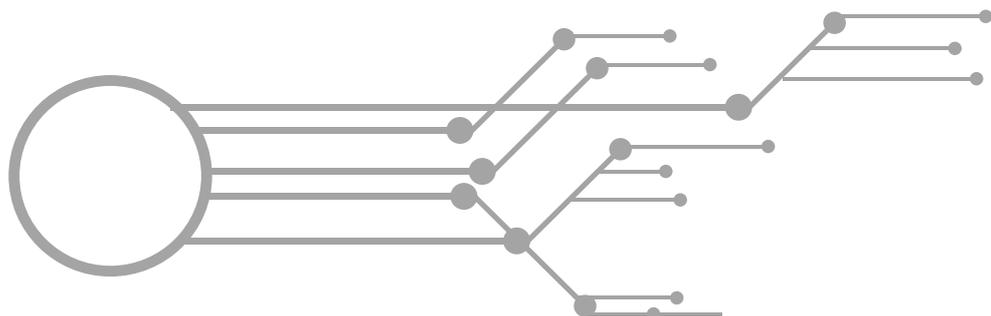


Module 9: Unsupervised Learning

- K-Means
- K-Means ++
- Hierarchical Clustering

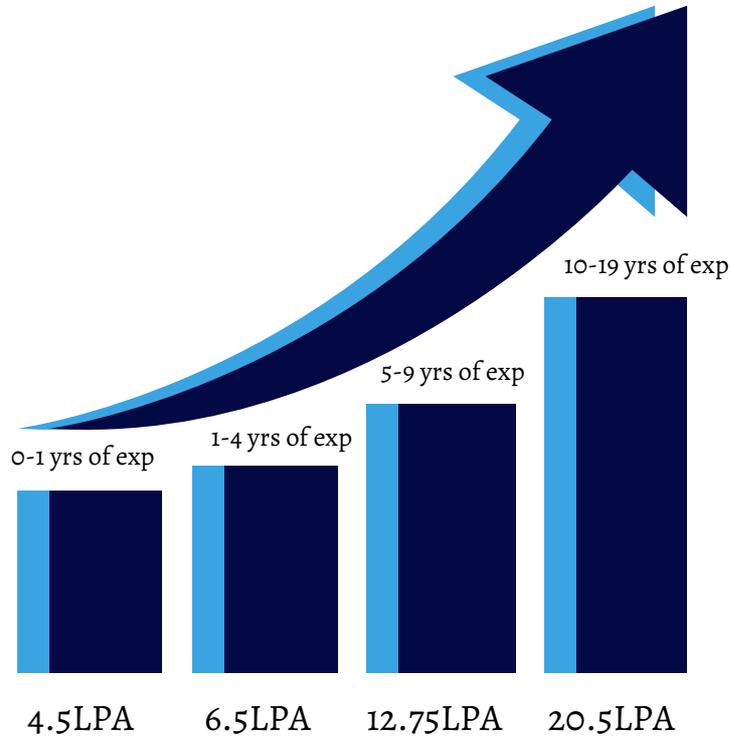
Module 10: Other Machine Learning algorithms

- K – Nearest Neighbour
- Naïve Bayes Classifier
- Decision Tree – CART
- Decision Tree – C50
- Random Forest





CAREERS IN DATA SCIENCE



salary packages





ELIGIBILITY CRITERIA & APPLICATION PROCESS

Who Can Apply?

Anyone with a B. Tech / M.Tech / MCA / M.Sc / M.A (Economics) / MBA / BCA / B.Sc (IT) / B.Sc or M.Sc (Computer Sci) degree

Anyone with Non-Technical background who has Basic computer knowledge.

How To Apply?



Visit the website and submit application.



Check eligibility and Secure the Payment.



CERTIFICATE



CERTIFICATE
of COMPLETION

WE ARE PROUDLY PRESENT THIS TO

Kimberly Thompson

WHO HAS COMPLETED DATA SCIENCE & AI/ML COURSE FROM
KM SOLUTIONS CONCLUDED ON 20TH JUNE 2023

Inspiring towards success

DATE _____

Mr. GANESH BHOSALE
OWNER





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 **kmsolutions.in**

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