Data Science Tutorial

Tools for Data Science

To gain expertise in data science, you need to have a strong foundation in the following languages:

- Python for Data Science
- R for Data Science
- SQL for Data Science

Mathematics for Data Science

A solid understanding of mathematical concepts like statistics, linear algebra and calculus is important for building data science models.

- Mathematics for Data Science
- Statistics for Data Science
- Linear Algebra for Data Science
- Calculus for Data Science

Data Preprocessing

Data preprocessing involves cleaning and transforming raw data into a usable format for accurate and reliable analysis.

- What is Data Preprocessing?
- What is Data Cleaning?
- Handling Missing Data
- Handling outliers
- Feature Selection
- Feature Engineering
- Splitting Data into Training and Testing Sets

Data Analysis

Data analysis is the process of inspecting data to discover meaningful insights and trends to make informed decision.

- What is Data Analysis?
- Data Analysis Process
- What is Exploratory Data Analysis?
- Identifying correlations between features
- Statistical Analysis

Data Visualization

Data visualization uses graphical representations such as charts and graphs to understand and interpret complex data.

- [What is Data Visualization?](#)
- [Visualization with Matplotlib](#)
- [Visualization using Seaborn](#)
- [Visualization using Plotly](#)
- [PowerBI](#)
- [Tableau](#)

Machine Learning

Machine learning focuses on developing algorithms that helps computers to learn from data and make predictions or decisions without explicit programming.

- [Machine Learning Tutorial](#)
- [Deep Learning Tutorial](#)

You are now ready to explore real-world projects. For detailed guidance and project ideas refer to below article:
[*Data Science Projects [With Source code]*](#)

Careers in Data Science

Data Science has been considered one of the most desirable jobs in IT field today. Growth opportunities in data science jobs are comparatively high than in any other job. Some of the most notable jobs in data science are:-

- [Data Scientist](#)
- [Data Architect](#)
- [Data Administrator](#)
- [Data Analyst](#)
- [Business Analyst](#)