What is Data Science?

Data science is a multidisciplinary field that utilizes scientific methods, algorithms, processes, and systems to extract insights and knowledge from structured and unstructured data. It involves various techniques from statistics, machine learning, computer science, and domain expertise to analyze complex datasets, uncover patterns, make predictions, and drive decision-making. Data scientists collect, clean, process, and analyze data to derive actionable insights and solve real-world problems across diverse industries such as finance, healthcare, marketing, and technology.

What are the recommened video's for data science?

https://www.youtube.com/watch?v=JL_grPUnXzY&list=PLeo1K3hjS3us_ELKYSj_Fth2tIEkdKXvV

https://www.youtube.com/watch?v=eaFaD_IBYW4&list=PLeo1K3hjS3us_ELKYSj_Fth2tIEkdKXvV&index=2

https://www.youtube.com/watch?v=npgbI8KYvN8&list=PLeo1K3hjS3us_ELKYSj_Fth2tIEkdKXvV&index=3

What are data visualization tools?

Data visualization tools are software applications that help users create graphical representations of data. These tools allow users to transform raw data into visual formats such as charts, graphs, maps, and dashboards, making it easier to understand patterns, trends, and insights.

Popular Data Visualization Tools

Tableau

Description: Widely used for its powerful features and ease of use. It offers a wide range of visualization options and integrates with numerous data sources.

Strengths: Interactive dashboards, strong community support, and extensive customization options.

Power BI

Description: A Microsoft product that integrates well with other Microsoft services and tools. It is known for its robust data analysis capabilities.

Strengths: Seamless integration with Microsoft Office Suite, user-friendly, and strong data connectivity.

What is Microsoft Excel?

Microsoft Excel is a powerful spreadsheet application that includes robust data visualization capabilities. It is widely used for data analysis, financial modeling, and visualization due to its extensive features and ease of use.

Microsoft Excel remains a versatile and powerful tool for data visualization, suitable for a wide range of users from beginners to advanced analysts. Its extensive features, combined with ease of use and integration capabilities, make it a go-to tool for many data visualization and analysis tasks.

What Programming languages are used in Data Science.

Python

The Python programming language is widely used for data analysis and visualization due to its simplicity, readability, and extensive ecosystem of libraries. Python provides powerful tools for creating a wide range of visualizations, from simple plots to complex interactive dashboards.

R programming language

The R programming language is a powerful tool for data analysis and visualization, widely used in statistical computing and graphics. R's extensive libraries and packages make it a go-to choice for creating high-quality visualizations and conducting complex data analyses.

Learning materials for data science:

Data Science from Scratch: First Principles with Python

by Joel GrusPaperback / Softback

First Principles with Python

Intro to Python for Computer Science and Data Science: Learning to Program with Ai, Big Data and the Cloud

by Paul J. DeitelHarvey DeitelPaperback / Softback

Learning to Program with AI, Big Data and The Cloud

Mathematical Methods in Data Science

by Jingli RenHaiyan WangPaperback / Softback

Website Sources?

https://www.kaggle.com/account/login

https://www.datacamp.com/?utm_source=google&utm_medium=paid_search&utm_campaign id=1242944157&utm_adgroupid=155612383848&utm_device=c&utm_keyword=data%20camp &utm_matchtype=e&utm_network=g&utm_adpostion=&utm_creative=661128629501&utm_tar getid=kwd-298095775602&utm_loc_interest_ms=&utm_loc_physical_ms=1028684&utm_content=brd~pu re~pure&utm_campaign=220808_1-sea~brd~branded_2-b2c_3-row-p2_4-rtw_5-na_6-na_7-le_8-pdsh-go_9-na_10-na_11-na&gad_source=1&gclid=Cj0KCQjw_qexBhCoARIsAFgBlesIHQRIT3R6HltfLcjPkoq9VsgbXSMki8 aptbDSCm2pPAbqBlz3VOoaAlbFEALw_wcB