codecademy

FOUNDATIONS: DATA SCIENCE
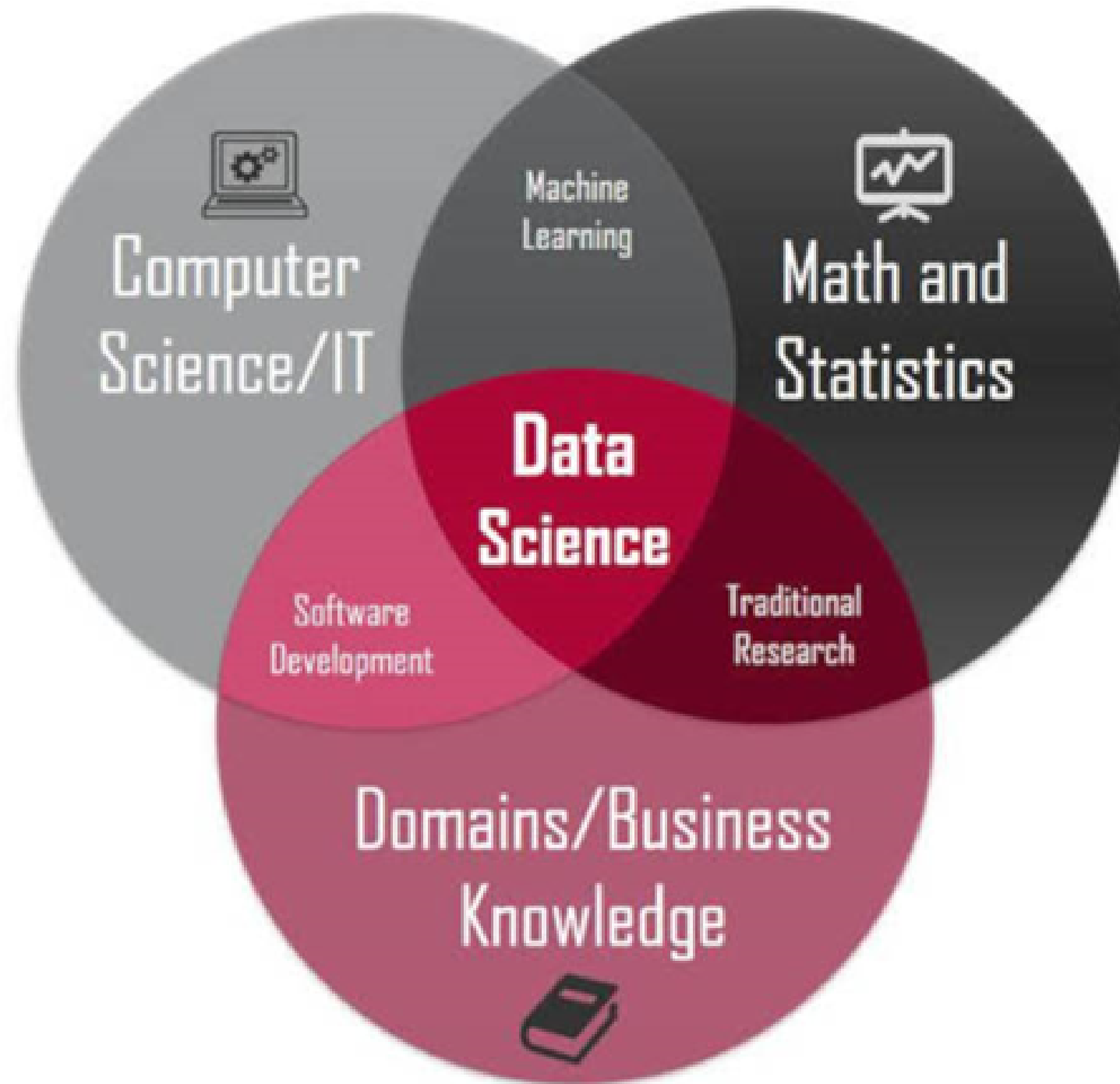
With Jasleen Kaur Sondhi

Agenda for Today

- What is Data Science?
- Who is a Data Scientist?
- What does a Data Scientist do?
- Applications of Data Science
- Job Roles in Data Science
- Difference between Data Science/AI/ML
- How is ML related to Data Science
- Learning resources for Data Science
- Career Path for Data Science

What is Data Science?

Data science, in its most basic terms, can be defined as obtaining insights and information, really anything of value, out of data.

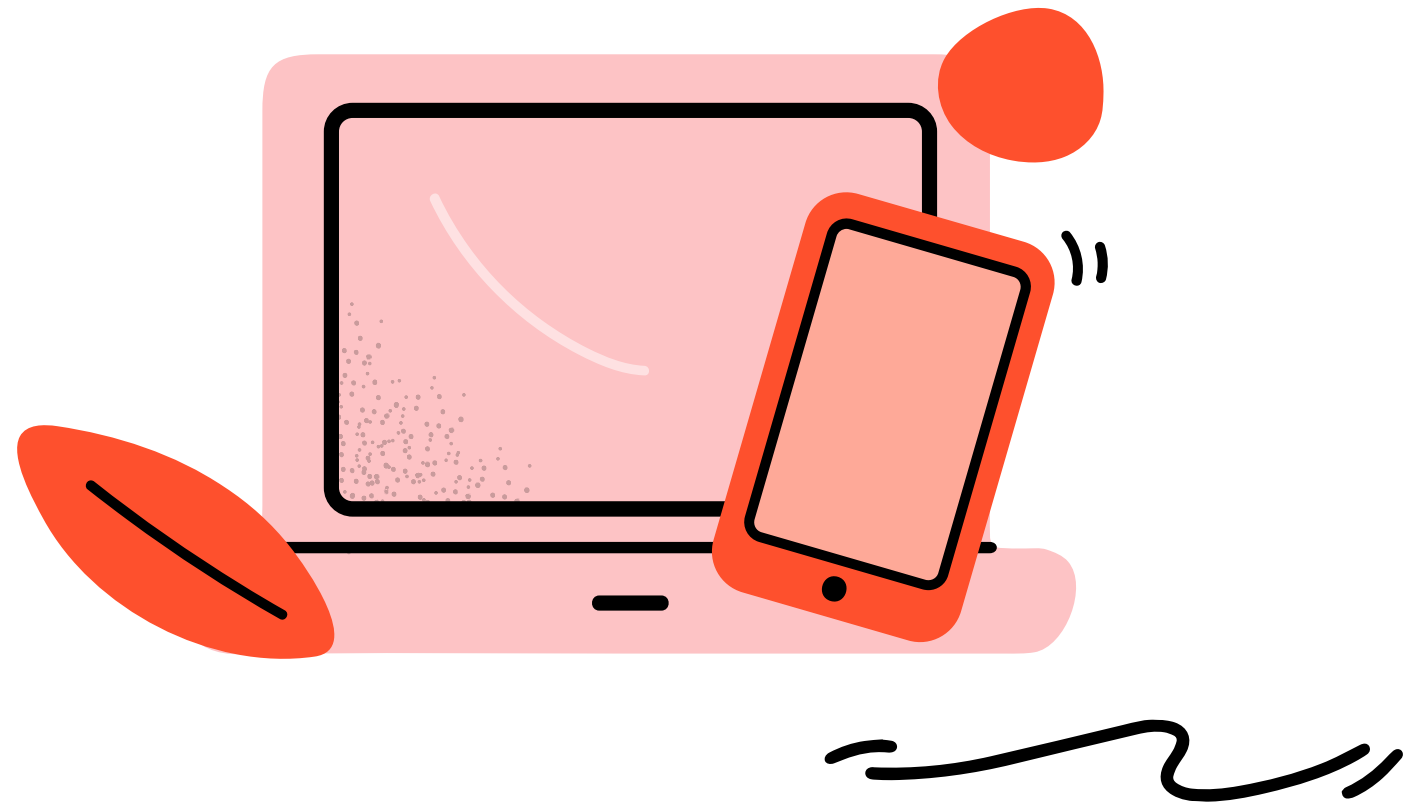# What is Data Science?

Who is a Data Scientist?

Data Scientist is someone who practices Data Science. They draw a lot of information from the scientific fields and applications whether it is statistics or mathematics.
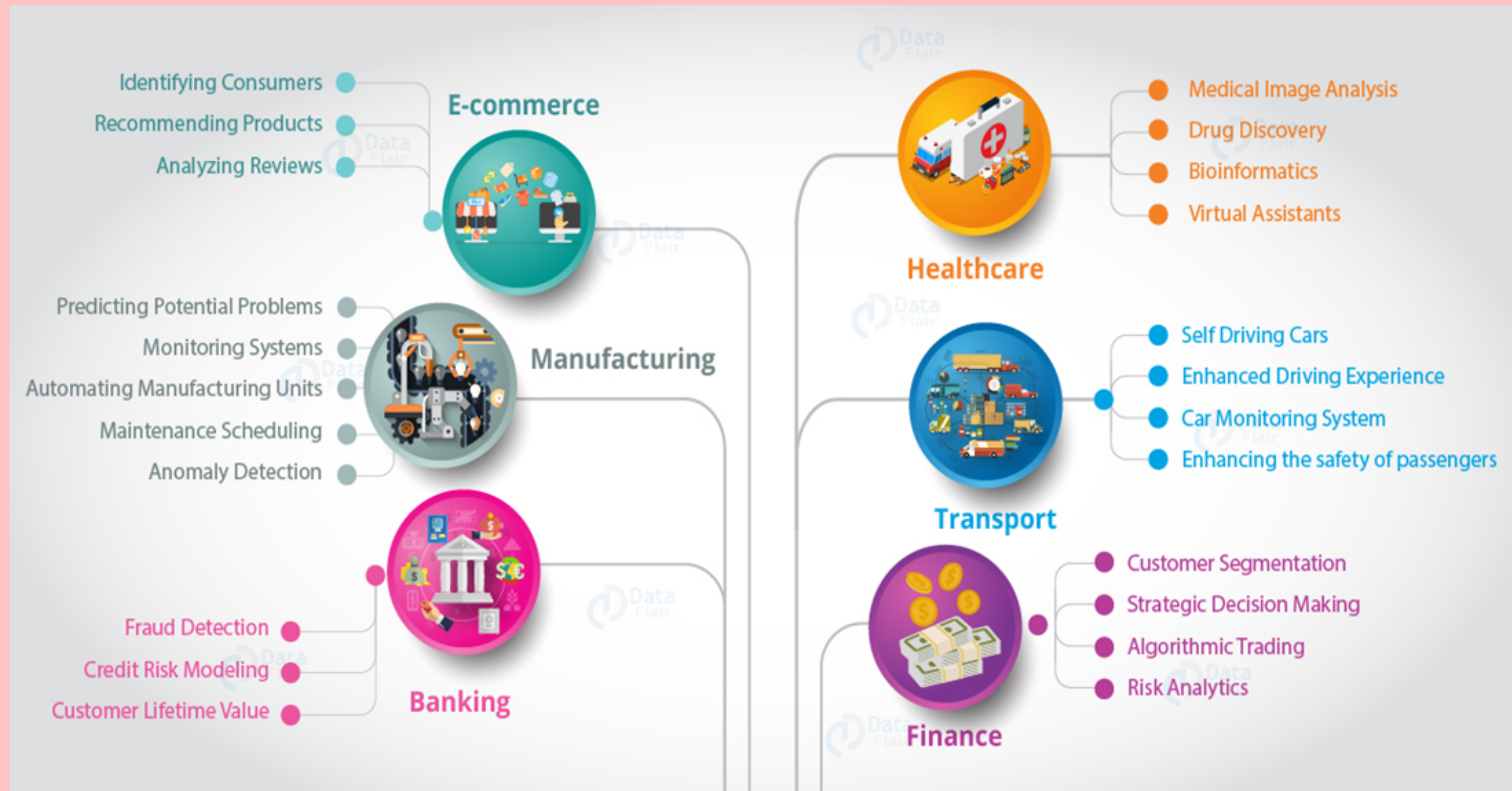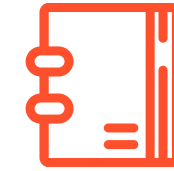
What do **Data** Scientists **do?**

- Identifying the data-analytics problems that offer the greatest opportunities to the organization
- Determining the correct data sets and variables
- Collecting large sets of structured and unstructured data from disparate sources
- Cleaning and validating the data to ensure accuracy, completeness, and uniformity
- Devising and applying models and algorithms to mine the stores of big data
- Analyzing the data to identify patterns and trends
- Interpreting the data to discover solutions and opportunities
- Communicating findings to stakeholders using visualization and other means
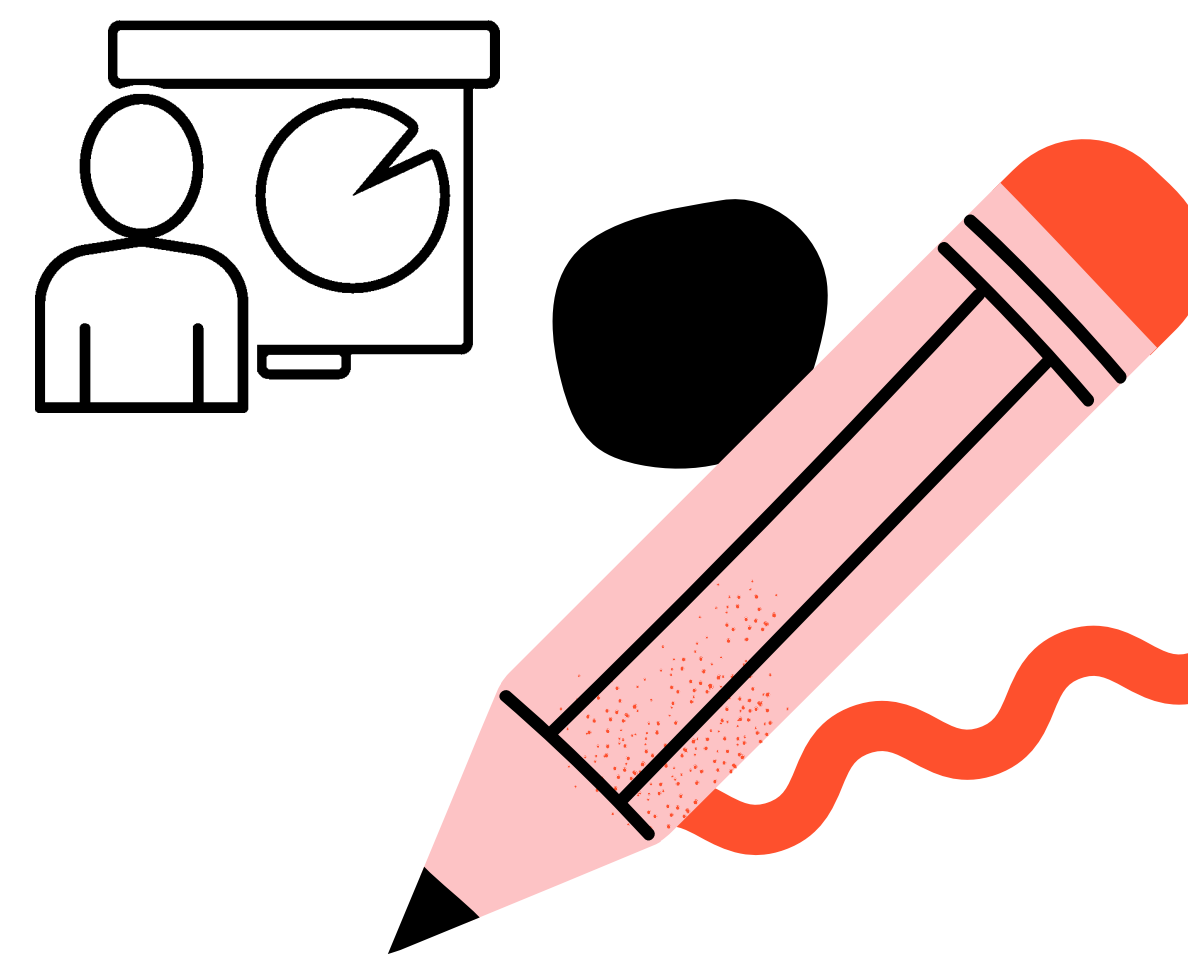
Applications of Data Science

Job Roles in
Data
Science

- Data Scientist
- Data Engineer
- Data Architect
- Data Administrator
- Data Analyst
- Business Analyst
- Machine Leaning Engineer
- Data/Analytics Manager
- Business Intelligence Manager

Data Science VS Artificial Intelligence VS Machine Learning

Data Science

Data science involves analysis, visualization, and prediction; it uses different statistical techniques.
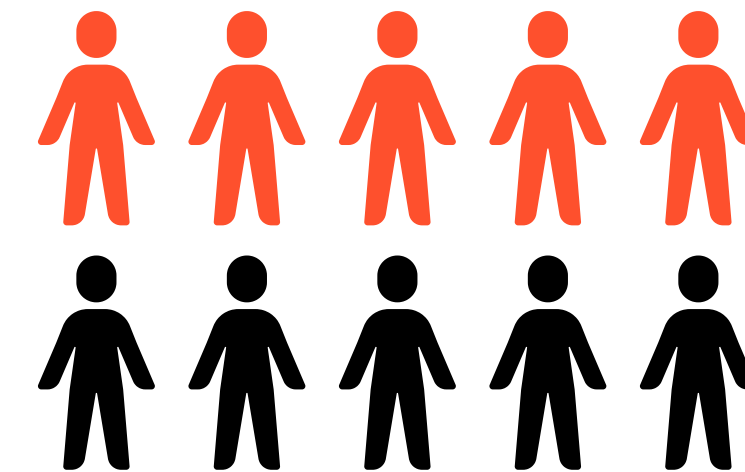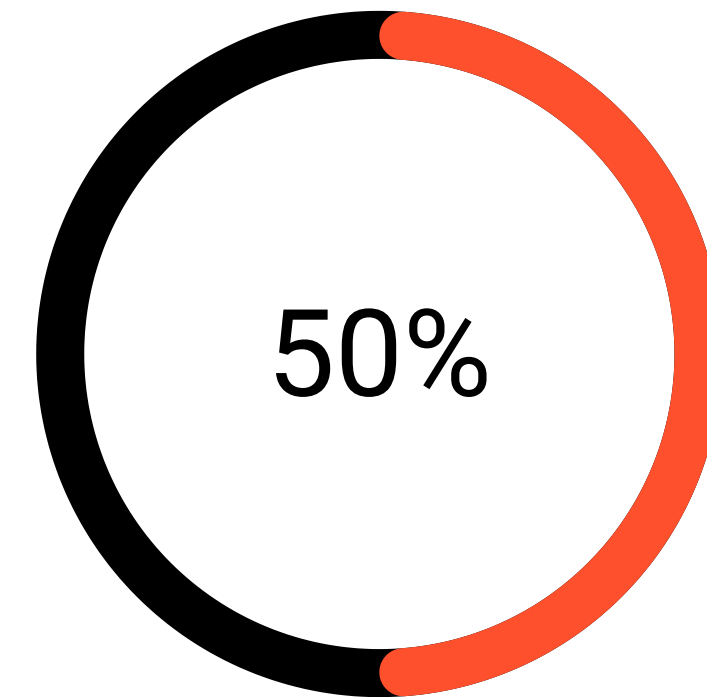
Artificial Intelligence

AI works with models that make machines act like humans. It means the computer, in one way or another, imitates human behavior.
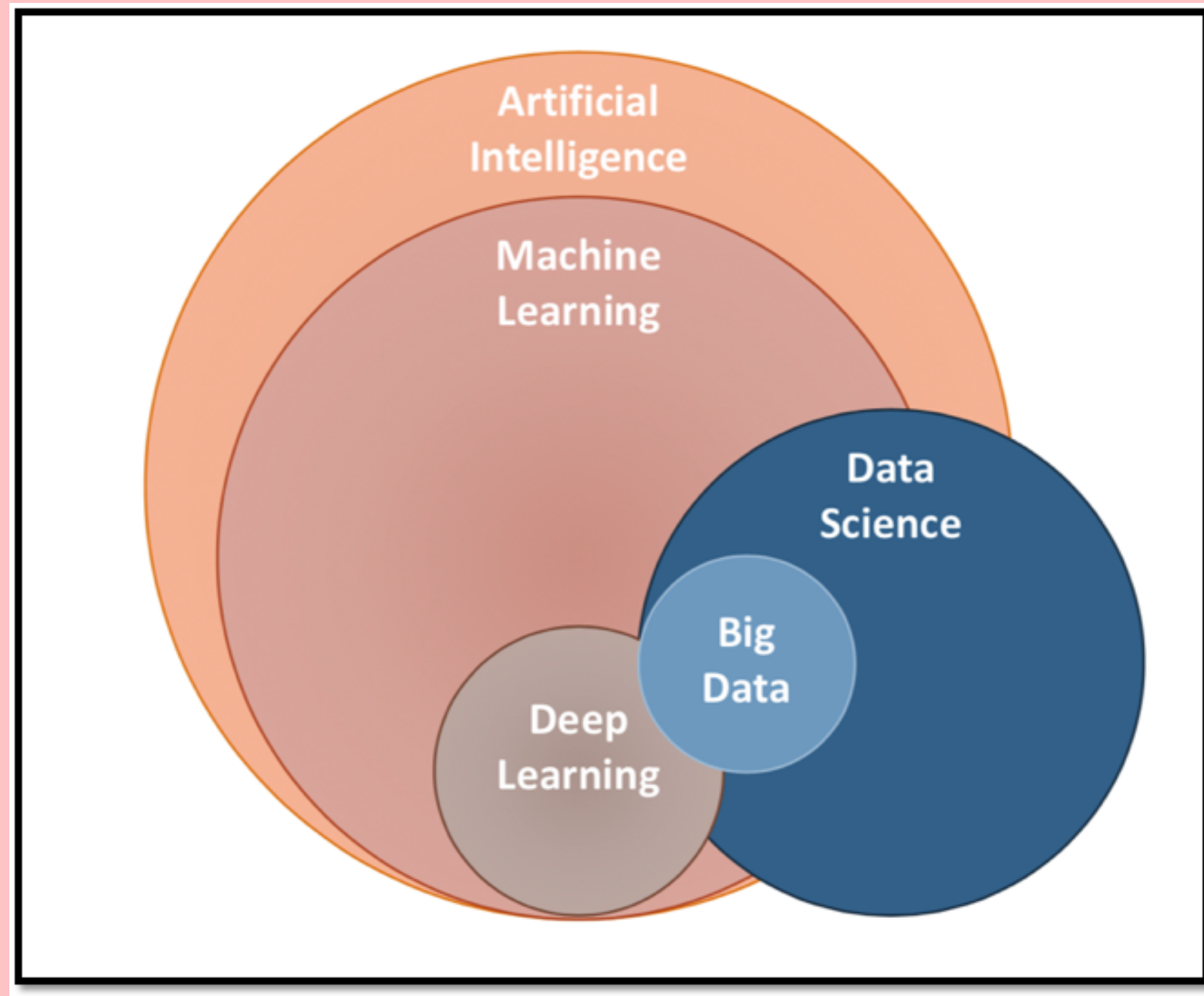
Machine Learning

ML is a branch of AI. It consists of methods that allow computers to draw conclusions from data and improve with experience.
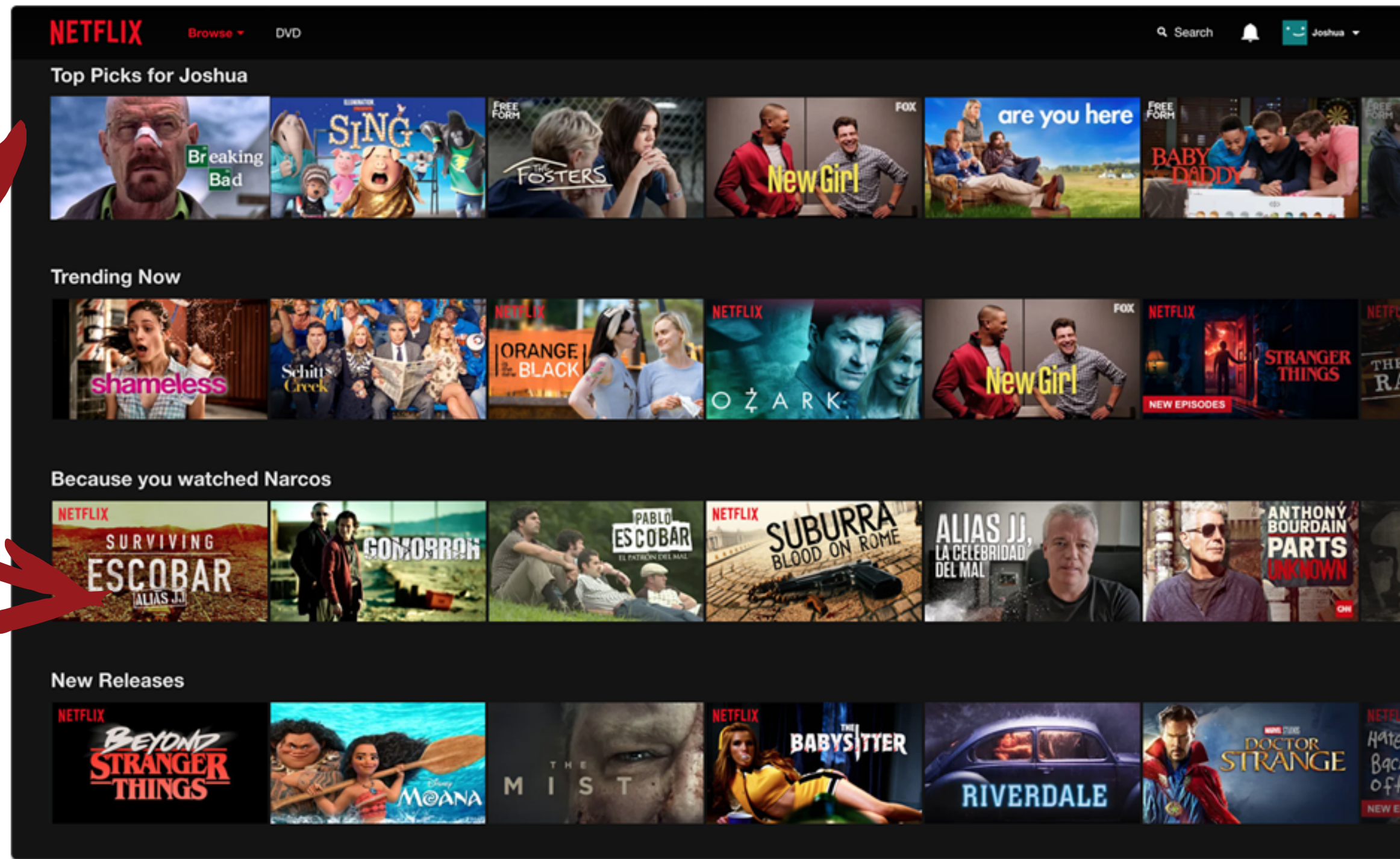
The demand for **Data Scientists** exceeds the supply almost by **50%**

50%

ML and Data Science

Where is ML used?

Learning Resources
for Data Science

Kaggle   Datacamp   Coursera- IBM

1. Probability & Statistics
2. Multivariate Calculus & Linear Algebra
3. Programming
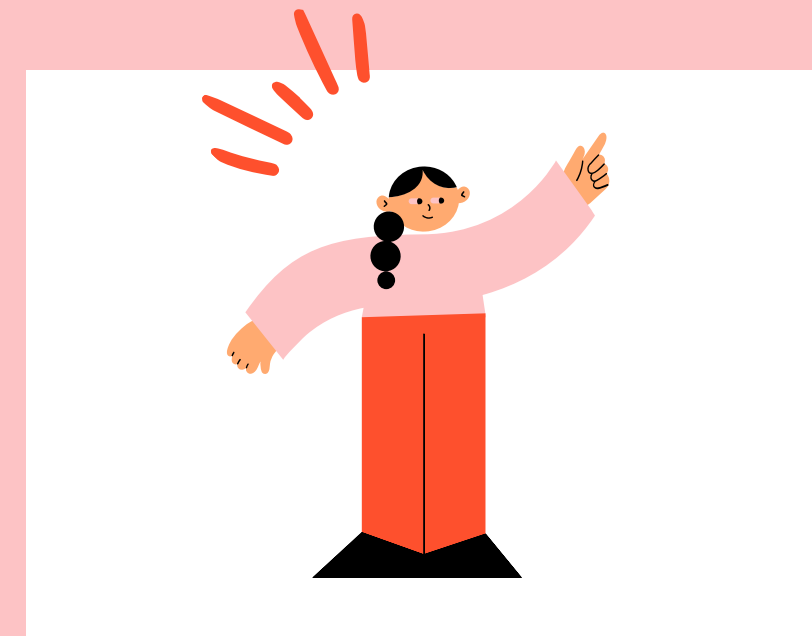4. Data Visualization
5. Cloud Computing
6. DevOps

Career Path in Data Science

Bachelors

Masters

PhD

OR

You can define your own path!

Food for Thought-
Acturial Science

If you are someone into Finance and Statistics, this domain might be for you!

THANK YOU FOR GIVING ME YOUR TIME!

Shoot your questions :)