

# ROLES IN DATA SCIENCE

Data Science is a Metaskill, means we can't point at one skill & say - "That is Data Science!"

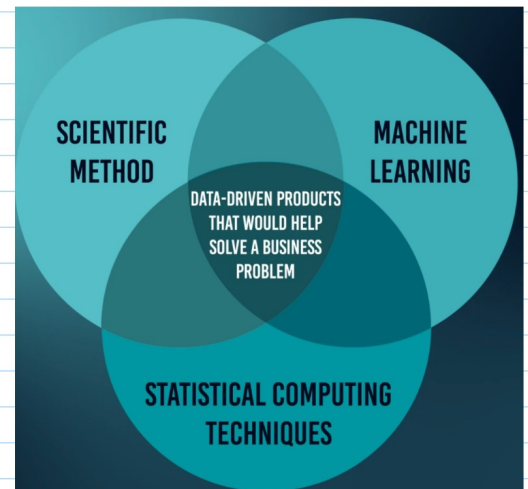
Data Science is a broad field that brings up wide variety of roles in the ecosystem.

Some Broad Roles are :-

## → Traditional Data Scientist

You should be able to :-

- Source the data
- Understand & Explore
- Perform Feature Engineering
- Perform Statistical Analysis
- Build Quantitative Models
- Automate Solutions
- Communicate Results to Stakeholders!
- Software Engineer Competencies (Ability to Automate & Scale)



## → Data Analyst

A data Analyst explores data, analyses data & pulls out insights about behaviours.

Data Analyst overlap with Data Scientist,

You'll Perform :-

- Data Cleaning
- Data Modelling
- Exploratory Analyses
- Retrospective & Prospective Statistical Analyses,
- Data-Driven Insights.

You'll use :-



If you are completely new, you may consider the Data Analyst role as a gateway into Data Science.

Data Scientist → Discovers (use experiments to understand systems)

Data Analyst → Analyses (use Past data)

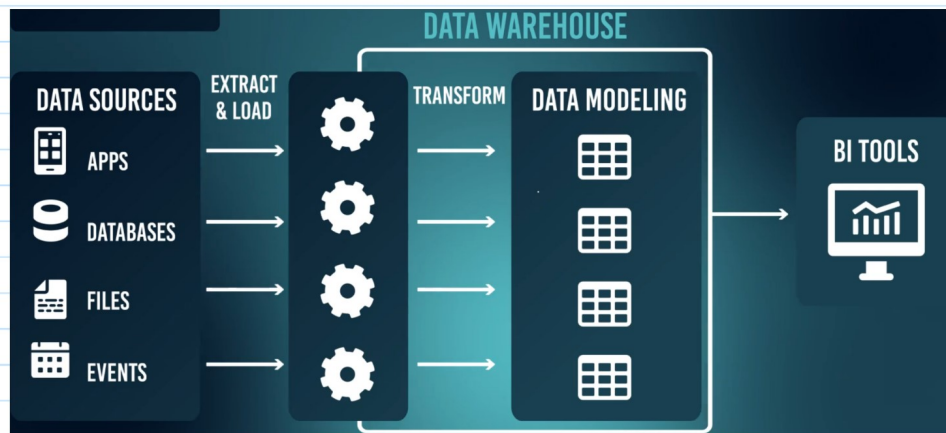
→ Machine Learning Engineer

- Definitely a Software Engineering Position. Person in this role takes a model & puts it into production.
- They help the company → Automate, Scale, Make Portable & Test the Prototype.

- They work with Data Scientists to refactor the Prototype Models.
- Large portion of your time is gonna be building software libraries, automating & testing prototypes that Data Scientist mocked up.
- Not having client facing responsibilities.
- You make sure, model does not break in Production.

## → Data Engineer

- Gets Data Ready for Data Science team.
- DE creates a pipeline....



- DE will be responsible for fully automated Feature Engineering.
- Focus on data infrastructure work, so that DS team can be successful.
- No client facing responsibilities.
- You are making sure that the Data gets to where it needs to be in the Format it needs to be in.
- Some Roles within Data Engineer....



## → Research Scientist

- Creates new Machine Learning Algorithms.
- More of a research / Academic role.
- Far less applied than a typical DS role.
- This role leverage Scientific methods to create new knowledge for company.
- More focused on the WHY.
- PhD or research based masters are preferred.

## → Data Product Manager

- Someone who uses Machine Learning models to improve their effectiveness in Traditional Product Management Role.
- It's a highly data intensive role, so much that it is also categorized as a role within the data professions.
- Manages all aspects of development & launch for company's product.
- Ideation → Research → Design → Development  
↓  
Performance Evaluation → Launch

- They have more technical skills & goes deeper in Data Science & predictive Analytics to guide & govern all of the decisions around product.
- Product Job + Data Science capabilities to deliver better business outcomes.

Data Science field is ever evolving & there's room for everyone. A few more roles which can be added to the list are :- MLOPs, Data Curator, AI Ethicist, ML Architect etc...