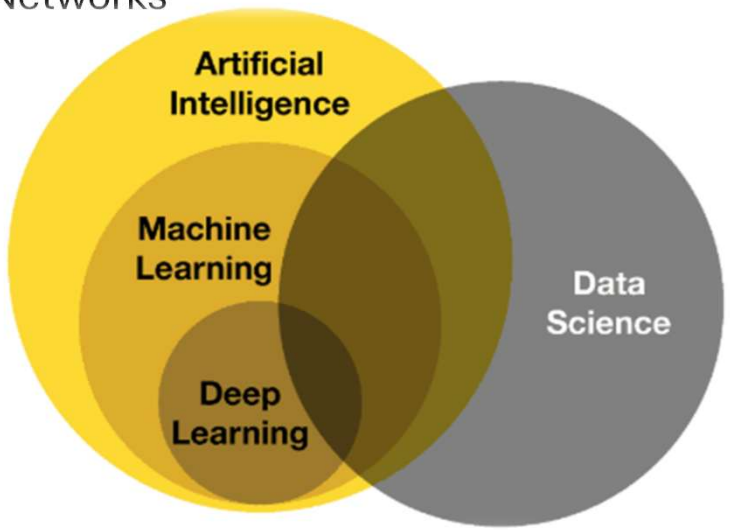
DS, AI, ML, DL, Analytics?

- Data Science — Processing, Analyzing, Insights
- Business Analytics — Solving problems, Making decisions
- Artificial Intelligence — Machines simulate human behavior
- Machine Learning — Computers learn themselves
- Deep Learning — Artificial Neural Networks



Popular Roles and Skills

Data Engineer

SQL, Python, Hive, Pig, Java, Hadoop, Spark, Kafka, Azkaban, Airflow, AWS, GCP, Azure

Data Warehousing, Ability to write, analyze, and debug SQL queries, Big Data platforms like Hadoop, Spark, Kafka, Flume, Pig, Hive, etc. , Experience in handling data pipeline and workflow management tools like Azkaban, Luigi, Airflow, etc., Strong Communication Skills

Data/BI Analyst

SQL, Excel, Python/R, Tableau/PowerBI/QlikView, Basics of Big Data, Basics of Cloud

Programming skills in Python/R , Solid understanding of database management systems, Proficient SQL/HQL skills, Good data visualization skills and proficient with Tableau/PowerBI/QlikView,etc ,basic understanding of predictive modelling

ML Engineer

Python, Machine Learning Algorithms, DL/NLP, Java, DBMS, Cloud Architecture, Big Data Architectures, AWS/GCP/Azure

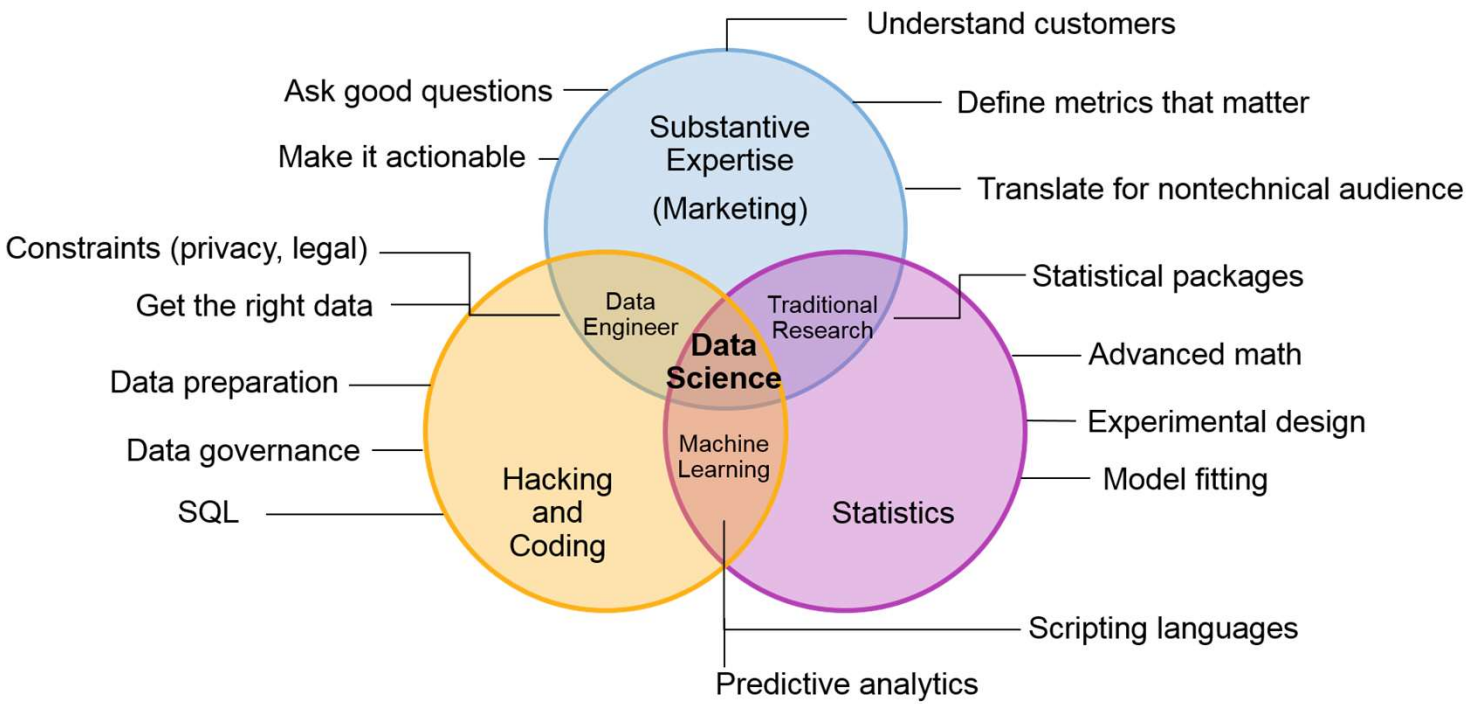
Understanding of data structures, data modeling and software architecture. Deep knowledge of math, probability, statistics and algorithms. Ability to write robust code in Python, Java and R. Familiarity with machine learning frameworks (like Keras or PyTorch) and libraries (like scikit-learn)

Business Analyst

Excel, Visio, SQL, Tableau

Domain understanding, Requirement Gathering, Requirement Elicitation, Process Excellence, User Acceptance Testing, Documentation Prowess, Basic Data Analysis Skills

Data Scientist Skills



Types of Analytics

- Descriptive analytics: “What happened?" - by summarizing historical data
- Diagnostic analytics: “Why it happened?" - by analyzing reasons for trends and patterns identified
- Predictive analytics: “What will happen?”- Statistical models and machine learning to predict future outcomes
- Prescriptive analytics: “What to do?” - Recommends what to do next based on insights from historical and predictive data