Data Science

- Data science is the study of large quantities of data, which can reveal insights that help organizations make strategic choices.
- There are many paths to a career in data science; most, but not all, involve a little math, a little science, and a lot of curiosity about data.
- New data scientists need to be curious, judgmental and argumentative.
- Why data science is considered the sexiest job in the 21st century, paying high salaries for skilled workers.

Data Scientist

- The typical work day for a Data Scientist varies depending on what type of project they are working on.
- Many algorithms are used to bring out insights from data.
- Accessing algorithms, tools, and data through the Cloud enables Data Scientists to stay up-to-date and collaborate easily.

Big Data and Mining

- How Big Data is defined by the Vs: Velocity, Volume, Variety, Veracity, and Value.
- How Hadoop and other tools, combined with distributed computing power, are used to handle the demands of Big Data.
- What skills are required to analyse Big Data.
- About the process of Data Mining, and how it produces results.

Deep Learning and Machine Learning

- The differences between some common Data Science terms, including Deep Learning and Machine Learning.
- Deep Learning is a type of Machine Learning that simulates human decision-making using neural networks.
- Machine Learning has many applications, from recommender systems that provide relevant choices for customers on commercial websites, to detailed analysis of financial markets.
- How to use regression to analyze data.

Data Scientist in Businesses

- Data Science helps physicians provide the best treatment for their patients, and helps meteorologists predict the extent of local weather events, and can even help predict natural disasters like earthquakes and tornadoes.
- That companies can start on their data science journey by capturing data. Once they have data, they can begin analysing it.

- Some ways that data is generated by consumers.
- How businesses like Netflix, Amazon, UPs, Google, and Apple use the data generated by their consumers and employees.
- The purpose of the final deliverable of a Data Science project is to communicate new information and insights from the data analysis to key decision-makers.

Careers and Recruting inn Data Science

- Data Scientists need programming, mathematics, and database skills, many of which can be gained through self-learning.
- Companies recruiting for a Data Science team need to understand the variety of different roles Data Scientists can play, and look for soft skills like storytelling and relationship building as well as technical skills.
- High school students considering a career in Data Science should learn programming, math, databases, and, most importantly practice their skills.

The Report Structure

- The length and content of the final report will vary depending on the needs of the project.
- The structure of the final report for a Data Science project should include a cover page, table of contents, executive summary, detailed contents, acknowledgements, references and appendices.
- The report should present a thorough analysis of the data and communicate the project findings.