

1. Machine Learning is for which Industry?

In **Machine Learning (ML)**, we build systems that let Computers learn how to do it themselves.

Machine Learning is transforming almost every single industry along the way.

2. Any prior experience is required in this domain (Machine Learning)

Not really, eagerness to learn is the key criteria and some basic mathematics – probability and statistics

3. How can we address Cyber Security related issues using Machine Learning?

ML can be used to analyse the huge amount of data generated about intrusion or potential break-ins. It can also analyse the footprint of malicious code (viruses) etc. and determine an automated action.

4. How can headhunters leverage Machine Learning using analytical data?

You can use Machine Learning to profile/ skill match, recommend right positions to candidates and automate the candidate filtering criteria. In an advanced version you can use ML to conducted automated interviews for shortlisting purpose

5. What is the future of Machine Learning in Digital Marketing?

Marketing is about identifying the right customers and focus marketing efforts for them. Marketing efforts targeted at wrong customer segment, wrong channel will yield low results. ML can help identify right channel and right customer segment resulting in focused marketing, lower cost and high yield.

6. What are the avenues of actual application of ML/AI in Process Industry?

Process is driven by data. ML helps identify patterns from data. Since data is produced/ used by most of the industries and hence Machine Learning is applicable to all of them.

7. How ML can be able to detect the Trojan, Malware in Cyber Security?

Based on the footprint of the virus. There are hundreds of thousands of viruses and ML can match the footprint and tell which virus is this.

8. How Machine Learning is useful in school education?

Help students choose right courses, help them in their analysis and thinking process. It can also help in school administration.

9. Can ML be used to understand student profiling and creating programs as per those profiles for example in test series ML can be used to lay out optimum path for a student to adopt and optimize his performance?

Yes

10. Is an ML Engineer different from Data Analyst?

ML Engineer assists a Data Analyst

11. Can Machine Learning be merged with CNC machine programs in Mechanical Engineering?

ML can provide real-time visualization of CNC machine analytics that allows a company to see accurate production metrics, such as utilization rates, and track them to production goals. There are several other analytics areas it provides information on, including diagnostics, predictive and prescriptive data. It will make an operator's job a more proactive one. Well-timed information can be the difference between losing days of profit from a CNC and being able to schedule and organize alternate paths to production goals.

12. What is the importance of unsupervised learning?

Unsupervised learning is mainly used for classification and association purpose. Classification categorises events while association will link events which are related i.e. when one buys bread, he/she also tends to buy butter. This kind of inferences will help targeted marketing campaigns.

13. What's the need of supervised Machine Learning if a machine can learn by itself (unsupervised learning)? It will save human efforts.

Unsupervised Machine Learning is for clustering and association. Given equal number of photos of cat and dog, under unsupervised learning it will be able to separate them and tell that there are two objects in the group but will not be able to label them as cats and dogs. Under supervised learning it can do so. In practical life, supervised learning is required in health care (diagnosis), fraud detection etc.

14. What is the difference between supervised learning and Reinforced learning, as we are telling whether the decision made is right or not?

Under supervised learning the machine is first trained through a set of training data. Post this it starts the prediction. Under reinforced learning, machine learns on the job and it's given feedback in real time through reward and punishment for good or bad decisions made.

15. How reinforced learning is used in real time data?

Any prediction which is wrong is fed back to the machine with a penalty. Machine remembers it next time and makes correct decision

16. In unsupervised learning, the machine may learn but with wrong labels. For example, it may associate all cat images as dogs and all dog images as cats. It doesn't know what each image is. It only knows to classify.

Yes, however once it classifies, it can categorize the future events on that basis i.e. clustering diseases of similar nature

17. What is Artificial Intelligence in Machine Learning?

Machine Learning is a subset of artificial Intelligence. AI is a bigger concept to create intelligent machines that can simulate human thinking capability and behavior, whereas, Machine Learning is an application or subset of AI that allows machines to learn from data without being programmed explicitly.

18. AI is the superset of ML. It is basically making a software/device adapt to a changing environment and work as per that environment. AI is used in Driverless cars for example.

Yes, that's right and a great example indeed.

19. How do we improve our Machine Learning model's accuracy, thereby making predictions more accurate?

It requires selection of the right model. There are multiple models which fit to different situations like linear regression, decision trees, neural networks, PCA etc. One needs to choose a right model for a problems for accurate results

20. So, if we feed more data and ensure we are able to diversify that will make the machines become more & more accurate right?

This is good till a certain extent. Once you reach a certain number of training instances, adding more data won't help.

21. Should a student join this course, for only from the job point of you?

Job is one of the outcomes. The course provides strong analytical thinking skills.

22. Which category does market basket analysis falls in?

Association

23. Being a developer of a domain, application or platform, how would I fit that in my existing architecture or it will be part of my existing code or usual code.

Not part of existing code but it can interface with your existing applications. ML can share its inferences from the data which you can use in your conventional programs to drive decisions. However that's not a recommended approach.

24. Are there any prerequisite for this course on Machine Learning?

Analytical skills, understanding of basic mathematics (probability and statistics) and eagerness to learn.

25. What can I improve by Machine Learning in my career.

Better job prospects

26. Is it effective to use Machine Learning for a very small data set, say 5 data points?

It may not be, as the machine has to derive trends and patterns to make right decisions. So 5 data points/sets will be too less

27. Only 35 hours will be sufficient to get expertise in ML or it will take more time?

35 hours will bring you to a level where you can confidently use Machine Learning. You know the various models, where and how they are used etc. Gaining expertise a constant learning process

28. Does one need to have excellent hands-on knowledge of Python to attend this course?

Python is very easy to learn language and can be quickly learnt if one knows programming.

29. How to decide when to apply neural network?

It is based on the problem situation. Neural networks are used for solving many business problems such as sales forecasting, customer research, data validation, and risk management etc.

30. Is association like Market Basket Analysis?

Yes