# DATA SCIENCE



# NEWSLETTER VOLUME -6



# 6 Common Myths about Machine Learning

Machine Learning is the mainstream media coverage in recent times, and there has been several articles and emotional stories posted every second. Machine Learning is proving to be most useful, and no denial that we have started invading business working models to create many remarkable advancements such as language translations, speech recognition, recommendation systems, and more. In fact, in certain complex problems, Artificial intelligence and Machine Learning have beaten our experts. Eventually, in one way or other, these advancements are the primary driving factor to get excited and engrossed in reading and researching about Machine Learning.

While you research on Machine Learning and its advancements, we often get tempted to think that there are endless ways to uncover Machine Learning to solve all our problems and applying it to every situation. But the sad truth is that still, every organization is yet to take full advantage of ML because of misconceptions that have grown up around it and dispelling in the very first step. Cut through the prevailing myths and misconceptions about Machine Learning to create more amazing things.



#### Myth#1: Machines learn in an autonomous way:

Don't be under the misconception that machines can learn everything by themselves in an autonomous way. In reality, Machine learning architecture needs to be designed and fed with the required training data by programmers. Most of the times, Machine learning demands a structured data, and it is in the hands of programmers on deciding the learning architecture, the learning parameters and the appropriate training data to be fed for as per the system's design. Ultimately, a programmer is only deciding whether it needs to be a supervised learning or unsupervised learning or reinforcement learning, not the machines. One such notable example is Self-driving cars, and it is a fantastic thing that these cars are vrooming on the streets without a driver; however, these cars wouldn't have hit the road without the significant efforts of humans behind. Painstakingly labeling and tagging various objects in the captured images for the training purpose is not performed by machines instead performed by humans. Sameep Tandon, the CEO of Drive.ai is quoting that "the interpretation process of the self-drive cars are more like hidden costs which people never talk about even though they are painful and cumbersome."



# Myth #2: Machine learning will soon lay roads for Superhuman intelligence

Well, from the daily news headlines about the advances of Artificial Intelligence, we are often pushed under the impression that computers are going to take over us pretty soon. Many popular AI movies talks on how Machines are developing their speaking, seeing and reasoning ability to finally leave the humans in the dust. It is true that we have come a long way in digital advancements, and besides, the main reason for the recent successes are because of the booming of AI, Machine learning and Deep Learning fields however we still have a long way to go. Machines are super fast and can perform tedious tasks at lightning speed but they lack in one most crucial thing, common sense, and no one know how to teach them.

#### Myth# 3: Machine Learning works just fine anywhere

Will you be ready to spend hundreds and thousands of dollars in great customization when you are struggling for finances to run your business? When cheap human labor is available to perform the same job at less than half of the money, the machine learning solution will not win the situation here.



Though there is a possibility of applying machine learning to small businesses with fewer data sets still considering the cost, only people who are using big data services will step forward. So, it is evident that Machine learning does have its limits and we can't blindly say that it can be applied anywhere. However, some initiatives are taken to break this dependency of large data sets and huge costs, probably in future, we can expect more startups joining hands in Machine Learning.

#### Myth# 4: Machine learning produces unbiased results

As much as we wish this to be true, this is not the case. To produce unbiased results, the data fed inside needs to be unprejudiced or not a one-side source data. When you feed the system with one side source data, then the results produced will be biased. We can not blame machines for this fault, but it is a caution for all those Machine learning experts working on the solution. They should not blindly rely on the analysis instead should also make sure that results produced are impartial.

#### Myth# 5: Machines will start learning like humans

We see those buzzing trends always talking about AI algorithms learning like humans, but the fact is they are no way close to how



chimpanzees learn. Let us compare the learning process of machines to that of a child, a child displays curiosity and intuitively creates her learning strategy by observing other humans walking around and sets her/his goal, whereas a machine requires guidance and support at each step of learning.

Furthermore, Machine doesn't have any sense organ to make an efficient learning process, so it has to be guided in every single step on how to synthesize and integrate inputs from multiple channels such as sound, sight, and text to understand things. Now, can you realize how tough this job is?

#### Myth# 6: Machine Learning and Data Mining are same

There have been thousands of articles getting posted daily talking about the difference between Data Mining and Machine learning, but it is often confused to be the same. Data Mining is similar to the job of a coal miner, who mines and takes out the coal but they don't know how to them into a beautiful diamond ring. Data mining is digging on data to identify properties or patterns that are unknown. Later, Machine learning is employed to use the dugout data with some properties or patterns to feed into machines to derive at useful insights. Though Data mining and Machine Learning works on similar principles, there is a thin line running between these two which depicts there differences.



### Upcoming Events - PyData

PyData is a group for users and developers of data analysis tools to share ideas and learn from each other. We gather to discuss how best to apply Python tools, as well as those using R and Julia, to meet the evolving challenges in data management, processing, analytics, and visualization. PyData groups, events, and conferences aim to provide a venue for users across all the various domains of data analysis to share their experiences and their techniques.

EVENT NAME: PyData Bangalore

VENUE: Grofers Tech Office

DATE: September 21 at 10 am

**Know More** 



### Job Listings

#### Job Listings For 0-5 Years

#### Lead Data Scientist

Unbxd Inc

Years: 0 - 5 Location: Bangalore

Key Skills: Experience in SQL, Big Data, Python, R, Java

Salary: Not Disclosed Posted On: 18 September

Apply

#### Data Scientist

#### Cerulean Information Technology

Years: 0 - 5 Location: Bangalore

Key Skills: Python, R, Machine learning, Deep learning, JAVA.

Salary: Not Disclosed Posted on: 15 September



Data Science

#### Data Scientist

#### Walmarts Lab

Years: 2-3 Location: Bangalore

Key Skills: Experience in SQL, Big Data.

Salary: Not Disclosed Posted On: 18 September



#### Data Scientist

#### Udaan.com

Years: 3 - 5 Location: Bangalore

 $Key\ Skills:\ Python,\ R,\ Machine\ learning,\ Deep\ learning,\ JAVA.$ 

Salary: Not Disclosed Posted on: 16 September



**Data Science** 

#### **Data Scientist**

24/7.ai

Years: 0 - 5 Location: Bangalore

Key Skills: Experience in SQL, Big Data.

Salary: Not Disclosed Posted On: 13 September



#### Senior Data Scientist

#### Walmart Labs India

Years: 3 - 5 Location: Bangalore

Key Skills: Python, R, Machine learning, Deep learning, JAVA.

Salary: Not Disclosed Posted on: 17 September



Data Science

#### Senior Data Scientist

#### Blue Jeans

Years: 2 - 5 Location: Bangalore

Key Skills: Experience in SQL, Big Data.

Salary: Not Disclosed Posted On: 17 September



#### Lead Data Scientist

#### Honeywell Technologies Lab PVT LTD

Years: 3 - 5 Location: Bangalore

Key Skills: Python, R, Machine learning, Deep learning, JAVA.

Salary: Not Disclosed Posted on: 18 September





**Data Science** 

#### **Data Scientist**

#### ITC Infotech

Years: 0 - 5 Location: Bangalore

Key Skills: Experience in SQL, Big Data.

Salary: Not Disclosed Posted On: 17 September



#### Software Engineer Data Scientist

#### Harman International

Years: 3 - 5 Location: Bangalore

Key Skills: Python, R, Machine learning, Deep learning, JAVA.

Salary: Not Disclosed Posted on: 18 September



#### Job Listings For 5 - 15 Years

#### Senior Data Scientist

#### **ORMAE**

Years: 0 - 15 Location: Bangalore

Key Skills: Experience in SQL, Big Data.

Salary: Not Disclosed Posted On: 17 September



#### Data Scientist

#### **PPD**

Years: 0 - 15 Location: Bangalore

Key Skills: Python, R, Machine learning, Deep learning, JAVA.

Salary: Not Disclosed Posted on: 17 September





**Data Science** 

#### **Data Scientist**

#### LinkedIn

Years: 5 - 15 Location: Bangalore

Key Skills: Experience in SQL, Big Data.

Salary: Not Disclosed Posted On: 18 September



#### Senior Data Scientist

#### Wells Fargo

Years: 5 - 10 Location: Bangalore

Key Skills: Python, R, Machine learning, Deep learning, JAVA.

Salary: Not Disclosed Posted on: 16 September





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