



Machine Learning vs AI vs Data Science vs Deep Learning

Machine Learning / March 8, 2020



Do you want to know the difference between Machine Learning vs AI vs Data Science vs Deep Learning? If yes, then give your few minutes here. After the end of the blog, you have a clear idea about Machine Learning vs AI vs Data Science vs Deep Learning, and how they are correlated?

Hello, & Welcome!

As we all know that Machine Learning, AI, Data Science & Deep learning are very popular terms in the field of Computer Science. Most of the techie people want to learn these technologies. Nowadays, every electronic gadget which is coming in the market is full of AI functionalities. Everywhere these technologies are using from business to education.

Therefore without wasting your time, I would like to discuss the differences between Machine Learning vs AI vs Data Science vs Deep Learning.

Machine Learning vs AI vs Data Science vs Deep Learning–

Firstly, I would like to start with–

Machine Learning–

“Machine Learning“... after hearing this word, you suddenly get a thought that “Machine Learning” is the process where a machine is learning something. Of course, you are right!

Machine Learning is the application that allows machines to learn and improves their performance by itself. In machine learning, some set of instructions are given in the form of training the model. On the basis of training data, the machine learning model learns and predicts the outcome.

For example, we build a model to differentiate between cat and dog. So firstly, we provide some images of cats and dogs to our model in the training phase. The model learns from training data. Model differentiate between dog and cat based on different parameters like face shape, length of ears, eye color, etc. After the model has been trained, we randomly give some images to model to predict whether its cat or dog? The model predicts the result according to its learning.

You can consider a machine learning model as a newborn child, who learns in the same way as machine learning learns. The newborn child learns from the instruction given by his parents and by his own experiences. He learns walking by falling again and again and corrects himself and try again walking. Machine Learning does the same job, the model learns and improves performance by correcting the mistakes.

Process of Machine Learning–

Process of Machine Learning includes mainly 5 steps–

1. **Data Collection**– The first step in machine learning is data collection. For training the model, this data is used.
2. **Data Cleaning**– The data we collect is full of noise and not in a proper format. This step performs all the tasks related to data cleaning.
3. **Training**– Once the data cleaning complete, this clean data is used for training the model. Model learn from this training data.
4. **Testing**– After the training phase, the model learns, now it's time to test its performance. In testing, randomly some data is given, and the model has to predict it on the basis of its knowledge.
5. **Tuning**– If the model is not accurate as needed so in this step, performs tuning to improve the model performance.

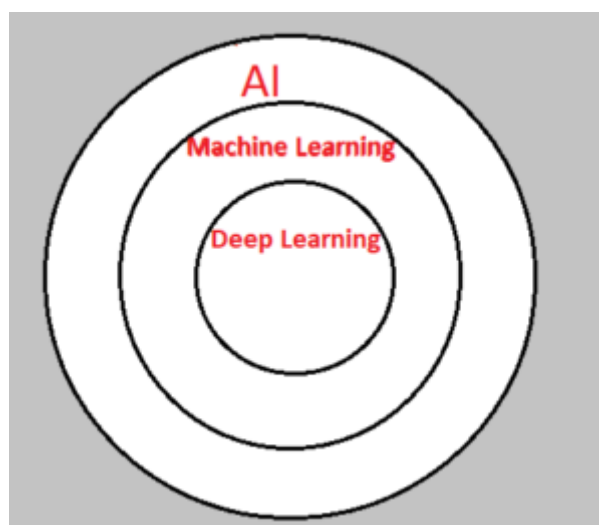
Artificial Intelligence (AI)–

As the name sounds, " **Artificial Intelligence**" means Intelligence which doesn't belong to humans. It belongs to machines.

In other words, the objective of AI is to make machines as intelligent as humans. Machines react like a human being. A machine can make an intelligent decision as humans do.

And surprisingly, AI accomplished the objective. Nowadays you can see everywhere AI is present. The robots are full of ai. Self-driven cars are coming into the market.

Machine learning is the subpart of AI.



Difference between AI vs Machine
Learning vs Deep Learning

Data Science–

Data Science is somewhere related to all of us because we are generating a huge amount of data daily. This data is anything, it may be one facebook likes, one-click on any website, one image upload, etc.

According to one report, By 2025, it's estimated that 463 exabytes of data will be created each day globally – that's the equivalent of 212,765,957 DVDs per day!

As the data growth is too high, data science comes into the scene, data is not in the proper format, but it contains very valuable information for the business. If we find certain patterns from data, it plays an important role in the business industry. This data can turn into revenue if we find patterns.

For example, if someone buys milk and bread together so put milk and bread together in a supermarket to increase the sale of both items. By putting together both items, a person who comes to buy only milk might purchase bread too. So using such tactics there is an increase in market growth.

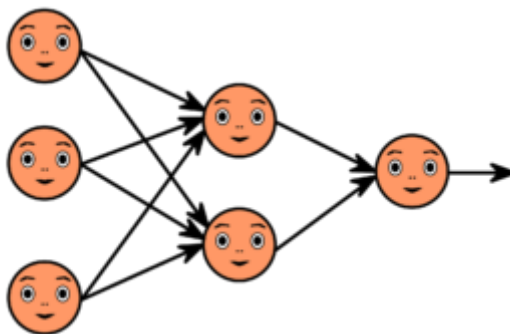


Deep Learning-

Deep learning is an advanced form of Machine Learning. If you have a small dataset and you want to make a model, then machine learning works perfectly. But if you have a large dataset and many features present in your dataset then machine learning algorithms fail to perform.

Here, deep learning is used. Deep learning works perfectly fine with large datasets and with lots of features. Deep learning works on artificial neural networks, which is the same

as the human brain, where neurons are connected. There are three layers, input layer, hidden layer, and output layer.



Mostly all industries are using Deep Learning. It is very powerful as compared to Machine learning, that's why it requires powerful hardware (GPU) to run. Deep learning is complex as compared to machine learning.

Application of Deep learning is speech recognition, image recognition, [natural language processing](#), medical image analysis.

I hope now you have to understand the difference between all these terms. If you have any doubt, feel free to ask me in the comment section.

Are you ML Beginner and confused, from where to start ML, then read my BLOG – [How do I learn Machine Learning?](#)

If you are looking for Machine Learning Algorithms, then read my Blog – [Top 5 Machine Learning Algorithm](#).

If you are wondering about Machine Learning, read this Blog- [What is Machine Learning?](#)

Enjoy Machine Learning

All the Best!

Thank YOU!

Though of the Day...

‘Leadership and learning are indispensable to each other.’

– John F. Kennedy

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38 thoughts on “Machine Learning vs AI vs Data Science vs Deep Learning”



KRISTEN

MARCH 20, 2020 AT 12:23 AM

Hi, I do believe this is a great site. I stumbled upon it 😊

I will return once again since i have book-marked it.

Money and freedom is the best way to change, may you be rich and continue to guide others.

This is a topic which is near to my heart...

Take care! Where are your contact details though? It's the best time to make some plans for the future and it's time to be happy.

I have read this post and if I could I wish to suggest you some interesting things or advice.

Maybe you can write next articles referring to this article.

I wish to read more things about it! <http://foxnews.net>

[Reply](#)



AQSAZAFAR

MARCH 20, 2020 AT 5:39 AM

Thank you for your feedback.

[Reply](#)

**HGF**

MARCH 26, 2020 AT 4:20 PM

Pretty nice post. I simply stumbled upon your blog and wished to say that I've truly loved surfing around your weblog posts. After all I will be subscribing to your feed and I am hoping you write once more soon!

[Reply](#)**AQSAZAFAR**

MARCH 27, 2020 AT 4:33 AM

Thank You!

[Reply](#)**BANARASI SAREE**

MARCH 28, 2020 AT 8:37 PM

Yeah bookmarking this wasn't a bad conclusion outstanding post!
<https://thesagov.com/index.php/User:CharleyHiv>

[Reply](#)**AQSAZAFAR**

MARCH 29, 2020 AT 5:20 AM

Thank you!

[Reply](#)

**PRIVATE PROXY IP**

APRIL 14, 2020 AT 10:15 PM

Hey there terrific blog! Does running a blog such as this take a massive amount work?

I have no knowledge of programming however I had been hoping to start my own blog soon. Anyways, should you have any suggestions or tips for new blog owners please share.

I understand this is off topic however I just wanted to ask.

Cheers!

[Reply](#)**AQSAZAFAR**

APRIL 15, 2020 AT 4:35 AM

Thank You. You should have a passion for writing and learning new things to start a blog.

[Reply](#)**MASECZKI ANTYWIRUSOWE JEDNORAZOWE**

APRIL 15, 2020 AT 10:19 PM

Highly energetic post, I loved that a lot. Will there be a part 2?

[Reply](#)**AQSAZAFAR**

APRIL 16, 2020 AT 4:43 AM

Thank You!

[Reply](#)**PREMIUM PROXY LIST**

APRIL 16, 2020 AT 8:25 PM

We stumbled over here from a different web address and thought I may as well check things out.

I like what I see so i am just following you. Look forward to checking out your web page yet again.

[Reply](#)**AQSAZAFAR**

APRIL 17, 2020 AT 5:01 AM

Thank You!

[Reply](#)**PROXY PURCHASE**

APRIL 16, 2020 AT 11:44 PM

Thanks for your personal marvelous posting! I definitely enjoyed reading it, you may be a great author.I will be sure to bookmark your blog and definitely will come back sometime soon. I want to encourage that you continue your great work, have a nice weekend!

[Reply](#)**AQSAZAFAR**

APRIL 17, 2020 AT 5:01 AM

Thank You!

[Reply](#)**PROXY PURCHASE**

APRIL 16, 2020 AT 11:55 PM

Hello, i think that i noticed you visited my weblog so
i got here to go back the prefer?.I am attempting
to to find issues to enhance my website!! guess its good enough to use a few of
your ideas!!

[Reply](#)**NAJLEPSZY PROGRAM PARTNERSKI**

APRIL 17, 2020 AT 7:37 PM

I needed to thank you for this fantastic read!! I certainly loved every little bit of
it. I have got you book-marked to check out new stuff you post...

[Reply](#)**AQSAZAFAR**

APRIL 18, 2020 AT 5:43 AM

Thank You!

[Reply](#)**RANKING PROGRAMÓW PARTNERSKICH**

APRIL 17, 2020 AT 8:48 PM

Right now it sounds like BlogEngine is the top blogging platform out there right now.

(from what I've read) Is that what you are using on your blog?

[Reply](#)**PLATFORMY AFILIACYJNE**

APRIL 17, 2020 AT 11:00 PM

Great delivery. Outstanding arguments. Keep up the amazing work.

[Reply](#)**AQSAZAFAR**

APRIL 18, 2020 AT 5:42 AM

Thanks a lot.

[Reply](#)**PROGRAMY PARTNERSKIE**

APRIL 18, 2020 AT 1:05 AM

Everything is very open with a clear clarification of the issues. It was definitely informative. Your website is very useful. Many thanks for sharing!

[Reply](#)**AQSAZAFAR**

APRIL 18, 2020 AT 5:42 AM

Thank You!

[Reply](#)**PROGRAMY PARTNERSKIE ZARABIANIE**

APRIL 18, 2020 AT 3:21 AM

Heya i'm for the first time here. I found this board and I find it truly useful & it helped me out a lot. I hope to give something back and help others like you aided me.

[Reply](#)**AQSAZAFAR**

APRIL 18, 2020 AT 5:41 AM

Thank You!

[Reply](#)**RANKING PROGRAMÓW PARTNERSKICH**

APRIL 18, 2020 AT 3:54 AM

Hey there, You've done an incredible job.

I'll definitely digg it and personally suggest to my friends. I'm sure they'll be benefited from this site.

[Reply](#)**AQSAZAFAR**

APRIL 18, 2020 AT 5:41 AM

Thank You

[Reply](#)**PROGRAMY PARTNERSKIE BANKÓW**

APRIL 18, 2020 AT 8:04 AM

I'm impressed, I must say. Rarely do I come across a blog that's equally educative and interesting, and without a doubt, you have hit the nail on the head.

The issue is an issue that not enough folks are speaking intelligently about.

I'm very happy that I stumbled across this during my search for something regarding this.

[Reply](#)**INTERNETU BEZPRZEWODOWEGO**

APRIL 18, 2020 AT 9:30 AM

You really make it appear so easy together with your presentation however I in finding this matter to be actually something that I think I would by no means understand.

It sort of feels too complex and very vast for me. I am looking ahead on your next publish, I'll try to get the hang of it!

[Reply](#)**ABONAMENT INTERNET STACJONARNY**

APRIL 19, 2020 AT 9:13 AM

I think this is among the most important information for me.

And i'm glad reading your article. But wanna remark on few general things, The website style is wonderful, the articles is really great : D.

Good job, cheers

Reply



AQSAZAFAR

APRIL 20, 2020 AT 4:24 AM

Thank You.

Reply



WEBCAM GIRLS

APRIL 20, 2020 AT 5:53 AM

I couldn't refrain from commenting. Very well written!

Reply



AQSAZAFAR

APRIL 20, 2020 AT 8:19 AM

Thank You!

Reply



BEST AFFILIATE MARKETING PROGRAMS

APRIL 20, 2020 AT 1:19 PM

Good article. I am dealing with some of these issues as well..

Reply



AQSAZAFAR

APRIL 21, 2020 AT 4:32 AM

Thank You

[Reply](#)**HURTOWNIE KONOPNE**

APRIL 30, 2020 AT 1:49 AM

Definitely consider that that you said. Your favorite reason seemed to be on the net the easiest factor to understand of. I say to you, I definitely get irked whilst other folks think about issues that they plainly do not recognize about.

You managed to hit the nail upon the highest as smartly as outlined out the whole thing with no need side-effects , other people can take a signal.

Will probably be back to get more. Thanks

[Reply](#)**AQSAZAFAR**

APRIL 30, 2020 AT 5:02 AM

Thank You for your Valuable Feedback.

[Reply](#)**ODZYWKA NA POROST RZES**

APRIL 30, 2020 AT 5:24 PM

Magnificent goods from you, man. I have understand your stuff previous to and you're just extremely fantastic. I really like what you have acquired here, certainly like what you're stating and the

way in which you say it. You make it entertaining and you still care for to keep it sensible. I can't wait to read much more from you. This is really a tremendous site.

[Reply](#)**AQSAZAFAR**

MAY 1, 2020 AT 6:31 AM

Thank You so much!

[Reply](#)

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Email*

Website

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