We all have heard of Machine Learning and all its perks. It might be the hottest field right now but most of still are not sure what Machine Learning is?
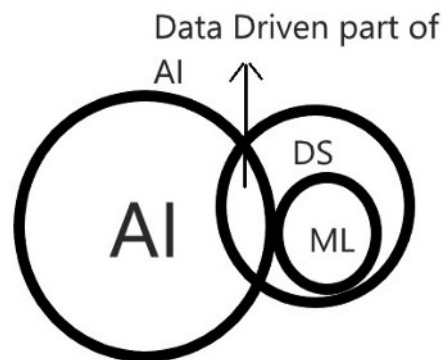
So, **Machine learning** is a subset of **Data Science**. But what's Data Science?

Data Science is a process that involves steps like- **Collect, Store, Process, Describe, Model**. These are all steps that we perform on our data to get meaningful insights that help us to predict, classify as according to our needs.

But some people say that Data Science is again a subset of Artificial Intelligence. But again, what is Artificial intelligence?

Artificial Intelligence revolves around building an agent that is capable of stimulating "human intelligence". It involves Problem Solving, Knowledge representation, Reasoning, Decision Making. Some of these uses of AI are data-driven and hence might require the use of cleaning and processing over data that's Data Science.

So now the Venn diagram is something like this that:

Artificial Intelligence is a superset and the data-driven part of it intersects with Data Science which is a further superset of Machine Learning.

But again, what exactly Machine Learning is?

It is providing a computer with the ability to learn without being programmed explicitly. Or in laymen world, the computer here refers to a child and you are expected to be its parents. Now you gotta teach it

how to survive in the world?

How can you do that? There are different ways some includes that you might teach it from your past experiences, or another one is you might just leave it on its own to experience failure and learn from it or you can lure it with some reward if he does good act like our parents do expect us to get better marks in our exams xD.

Talking technically now, there are 3 ways to teach Machine:-

1. **Supervised Learning**—In this type, we have labelled data, that means we will train our machine first and then expect it to predict/classify in the most accurate way.
2. **Unsupervised Learning**—In this type, we don't have labelled data and let the machine learn without any guidance. It groups information based on similarities, differences or patterns.
3. **Reinforcement Learning**—In this type, we reward machine for every good action and punish it for every bad action. The machine stores the experience to make its future action as better as possible.

So that's all basics about machine learning, now you can dive in the world of machine learning and play with data.

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Stay tuned for further Machine Learning/ Deep Learning blogs.

Cheers.