



SRI AKILANDESWARI WOMEN'S COLLEGE
WANDIWASH

MACHINE LEARNING

CLASS : UG COMPUTER SCIENCE

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Introduction to Machine Learning



- ▶ Machine learning is an application of artificial intelligence that involves algorithms and data that automatically analyse and make decision by itself without human intervention.
- ▶ It describes how computer perform tasks on their own by previous experiences.
- ▶ Therefore we can say in machine language artificial intelligence is generated on the basis of experience.

WHAT IS MACHINE LEARNING

- ▶ The difference between normal computer software and machine learning is that a human developer hasn't given codes that instructs the system how to react to situation, instead it is being trained by a large number of data.

NORMAL COMPUTER VS ML

Some of the machine learning algorithms are:

- Neural Networks
- Random Forests
- Decision trees
- Genetic algorithm
- Radial basis function
- Sigmoid



There are three types of machine learning

- ▶ Supervised learning
- ▶ Unsupervised learning
- ▶ Reinforcement learning

TYPES OF MACHINE LEARNING

- ▶ Traffic prediction
- ▶ Virtual Personal Assistant
- ▶ Speech recognition
- ▶ Email spam and malware filtering
- ▶ Bioinformatics
- ▶ Natural language processing

MACHINE LEARNING USES:

- ▶ **TRAFFIC PREDICTION**
- ▶ **VIRTUAL PERSONAL ASSISTANT**
- ▶ **ONLINE TRANSPORTATION**
- ▶ **SOCIAL MEDIA SERVICES**
- ▶ **EMAIL SPAM FILTERING**
- ▶ **PRODUCT RECOMMENDATION**
- ▶ **ONLINE FRAUD DETECTION**

REAL TIME EXAMPLES FOR ML

Some of the best and most commonly used machine learning programs are

- ▶ Python,
- ▶ java,
- ▶ C,
- ▶ C++,
- ▶ Shell,
- ▶ R,
- ▶ JavaScript,
- ▶ Scala,
- ▶ Shell,
- ▶ Julia

BEST PROGRAMMING LANGUAGES FOR ML



- ▶ Artificial Intelligence is a concept of creating intelligent machines that stimulates human behaviour whereas Machine learning is a subset of Artificial intelligence that allows machine to learn from data without being programmed.

DIFFERENCE BETWEEN MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

- ▶ Fast, Accurate, Efficient.
- ▶ Automation of most applications.
- ▶ Wide range of real life applications.
- ▶ Enhanced cyber security and spam detection.
- ▶ No human Intervention is needed.
- ▶ Handling multi dimensional data.

ADVANTAGES OF MACHINE LEARNING

- ▶ It is very difficult to identify and rectify the errors.
- ▶ Data Acquisition.
- ▶ Interpretation of results Requires more time and space.

DISADVANTAGES OF MACHINE LEARNING

THANK YOU !!!!

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