



**VIDYABHARTI TRUST COLLEGE OF
BUSINESS, COMPUTER-SCIENCE AND RESEARCH**
Department of Computer Application's Newsletter

VOLUME : 3

SEPTEMBER-2023

ISSUE : 9

digital+
Get to know more about **IT**

What is ML?

ML, or Machine Learning, is a field of artificial intelligence (AI) that focuses on the development of algorithms and models that enable computer systems to learn and make predictions or decisions without being explicitly programmed for each task. In other words, it involves creating and training models that can analyze and interpret data to identify patterns, extract meaningful insights, and make predictions or decisions.

The fundamental concept of machine learning involves providing the computer system with a set of data (training data) and allowing it to learn from this data to improve its performance on a specific task. The system uses statistical techniques and algorithms to generalize patterns from the training data and apply that knowledge to new, unseen data (testing data).

There are several types of machine learning approaches:

- **Supervised Learning:**

In supervised learning, the model is trained on labeled data, where each example in the training set is paired with the correct target output. The model learns to map input data to output labels and can make predictions on new, unseen data based on this learned mapping.

- **Unsupervised Learning:**

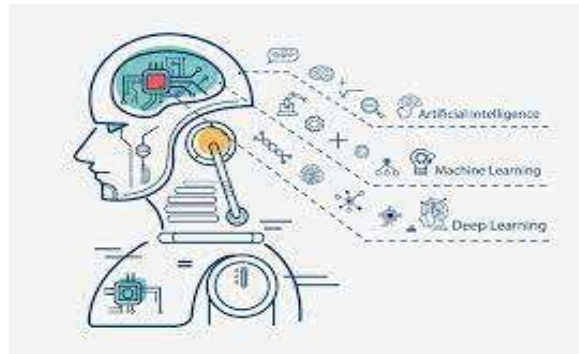
Unsupervised learning involves training the model on unlabeled data, and the model must find patterns and structure within the data without guidance. Clustering and dimensionality reduction are common tasks in unsupervised learning.

- **Semi-Supervised Learning:**

Semi-supervised learning is a combination of supervised and unsupervised learning. The model is trained on a dataset that contains both labeled and unlabeled data, allowing it to learn from the labeled data and generalize to predict labels for the unlabeled data.

- **Reinforcement Learning:**

Reinforcement learning involves training an agent to make a sequence of decisions by interacting with an environment. The agent receives feedback in the form of rewards or penalties based on its actions, helping it learn optimal strategies to achieve a goal.



WHICH IT COMPANY USE ML: -

Many IT and technology companies utilize machine learning (ML) in their products, services, and operations. As of my last knowledge update in September 2021, here are some prominent IT companies that extensively use machine learning in various applications:

Google:

Google uses machine learning across a wide range of products, including Google Search, Google Photos, YouTube, Google Translate, and many more. They also have a dedicated research group called Google Brain that focuses on deep learning and AI.

Facebook:

Facebook uses machine learning for content recommendations, personalized user experiences, ad targeting, and other applications. Their algorithms analyze user behavior and content to tailor the user experience.

Amazon:

Amazon employs machine learning in various aspects of its business, including product recommendations, demand forecasting, warehouse automation, and Alexa-powered devices. Amazon Web Services (AWS) also provides machine learning services to businesses.

Microsoft:

Microsoft uses machine learning in products like Microsoft Azure, Office 365, and Cortana. Azure offers a range of machine learning services, and they have research groups like Microsoft Research AI that focus on advancing AI technologies.

IBM:

IBM is a pioneer in AI and machine learning. They offer various machine learning and AI solutions through IBM Watson, including Watson Studio for model development and Watson Natural Language Understanding.

Apple:

Apple uses machine learning in Siri (their virtual assistant), facial recognition (Face ID), and other features in their devices and services.

Netflix:

Netflix uses machine learning for content recommendations to personalize the viewing experience for each user based on their viewing history and preferences.

Uber:

Uber uses machine learning for various purposes, including optimizing routes, predicting rider demand, calculating pricing, and improving the user experience.

Twitter:

Twitter uses machine learning for content curation, anomaly detection, and combating spam and abusive behavior on the platform.

ML USED Following Tools: -

In the field of machine learning (ML), there is a diverse set of tools and frameworks that help researchers, data scientists, and engineers develop, train, evaluate, and deploy machine learning models. These tools assist in various tasks, such as data preprocessing, model building, visualization, and more. Here are some common types of tools used in ML:

1. Integrated Development Environments (IDEs) :-

- **PyCharm** :-An IDE for Python, which is a widely used programming language for ML.
- **upyter Notebook**: An open-source web application that allows creating and sharing documents that contain live code, equations, visualizations, and narrative text, commonly used for interactive ML prototyping and data analysis.
- **Spyder**: A Python IDE for scientific computing and data analysis.

2. Machine Learning Frameworks:

- **TensorFlow**:An open-source ML framework developed by the Google Brain team, widely used for deep learning tasks.
- **PyTorch**:An open-source ML framework maintained by Facebook's AI Research lab, known for its dynamic computation graph and ease of use.

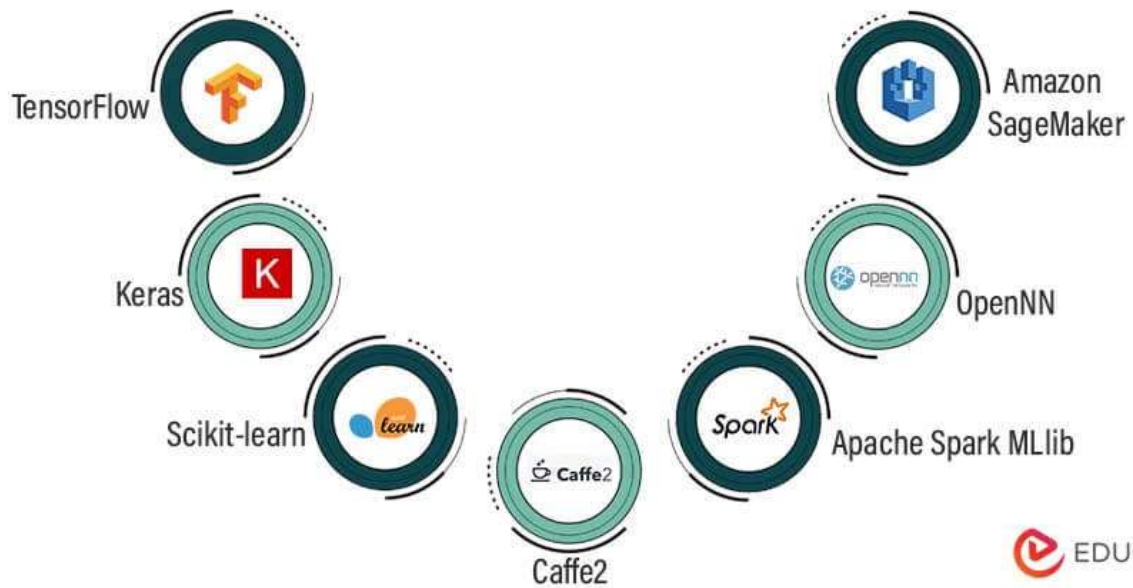
3. Data Preprocessing and Analysis:

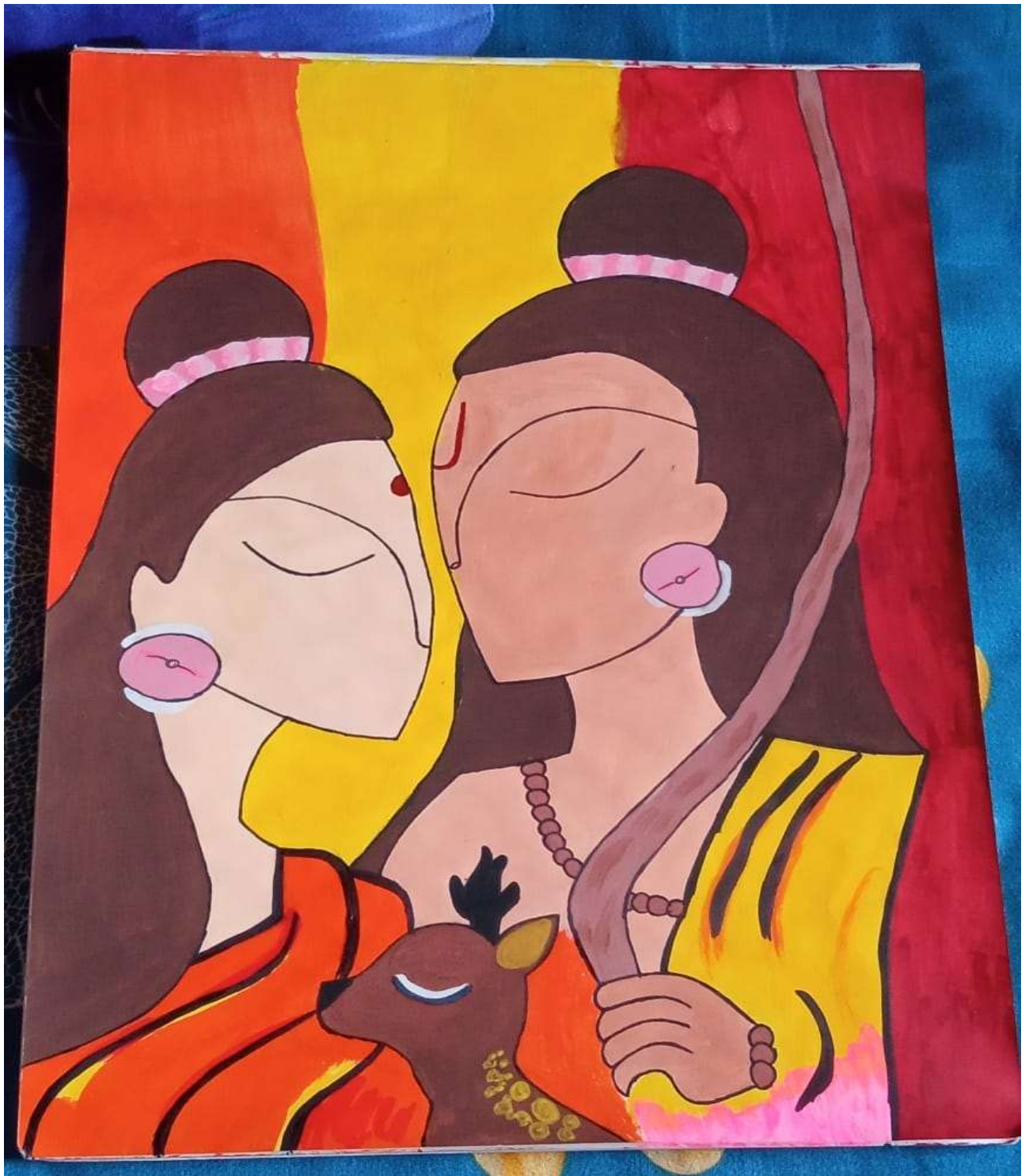
- **Pandas**: A fast, powerful, and flexible open-source data analysis and manipulation tool built on top of Python.
- **NumPy**: A fundamental package for scientific computing with Python, providing support for arrays and mathematical functions.

4. Visualization Tools:

- **Matplotlib**: A comprehensive library for creating static, animated, and interactive visualizations in Python.
- **Seaborn**:A Python data visualization library based on Matplotlib, providing a high-level interface for drawing attractive and informative statistical graphics.

Machine Learning Tools





RITU PRAJAPATI

SYBCA



VIKAS PATEL
SYBCA

A report on “Teacher’s Day Celebration 2023”

Event Date: 5th September 2023

Event Venue: Vidyabharti trust college of business, Research and Computer-Science, UmraKh.

Event Time: 9:30 AM to 1:50 PM

Organized By: BBA-BCA Staff Academic

year: 2022-2023

Vidyabharti Trust College of Business, Computer-science & Research has organised Teachers’ Day on the birthday of Dr. Sarvepalli Radhakrishnan, former president of India. The function took place in the college. All the departments of the college took active part in the event, very first students given a task to perform a role of teacher of any subject. They taught as teacher in the classroom. Student get real exposure to become a teacher and they enjoy this event a lot. After lectures on teacher’s day, Students of Cultural Committee host a Fun event between reel-life teachers and real-life teachers. With full fun, frolics and refreshment and of course lot and lots of memories...!

