

"MACHINE LEARNING USING PYTHON"

LEVEL OF PROGRAMMING LANGUAGE:

- i) Binary Level / Machine Level / Low Level (C, C++)
- ii) Mid Level / Assembly Level
- iii) High Level

Python:

- * It is a popular programming language
- * It was created by Guido Van Rossum and Released in 1991

Used for:

- * Web development (Server Side)
- * Software Development
- * Mathematics and
- * System Scripting

What can python do?

Python can be used

- * On a Server to Create web application
- * Alongside Software to Create Workflows
- * To connect database system and also read and modify files
- * To handle big data and perform complex mathematics

Why PYTHON:-

It works on different platform

[Windows, Mac, Linux, Raspberry Pi etc]

* It has simple syntax

* It allows the developers to write program with fewer lines than some other programming language

* It runs on Interpreter System

or

The code can be executed as soon as it is written and the prototyping can be very quick.

* Recent Version of Python is "Python 3"

Python Vs Other programming Languages:-

* Python Use New line to complete a command, as opposed to other programming language which often use semicolon or parenthesis.

Eg:-

```
print ("Hello World")
```

* FEATURES OF PYTHON:-

1) Simple & Easy to Learn - Syntax is close to English

2) Interpreted Language - No need to compile, runs directly

3) Dynamically Typed - No need to declare the variable type

4) Cross-platform - Works on Windows, Mac, Linux

5) Object Oriented & Procedural

- 6) Huge Library support - Numpy, Pandas, Django, flask
7) free & Open Source - Any One Can Use and Contribute

PYTHON VERSION:

1. Python 1.x [1991-2000]

* Introduced by Guido Van Rossum

* Basic data types (int, str)

Limitation: Very Simple, Lacked modern Libraries

Eg: `Print "Hello World"`

2. Python 2.x [2000-2020]

⇒ In 2000.

* Improved Standard Library, List Comprehensions

diff:- * print is a Statement, Not a function

* Integer division returned Integer only

Eg: `print "Hello World" # No brackets`

`print 5/2 # 2`

3. Python 3.x [2008-present]

Major feature: Full Unicode support, better Syntax, Modern Libraries

diff:- `print` is a function

Division returns float

Eg: `print ("Hello World") # Bracket required`

`print (5/2) # 2.5`