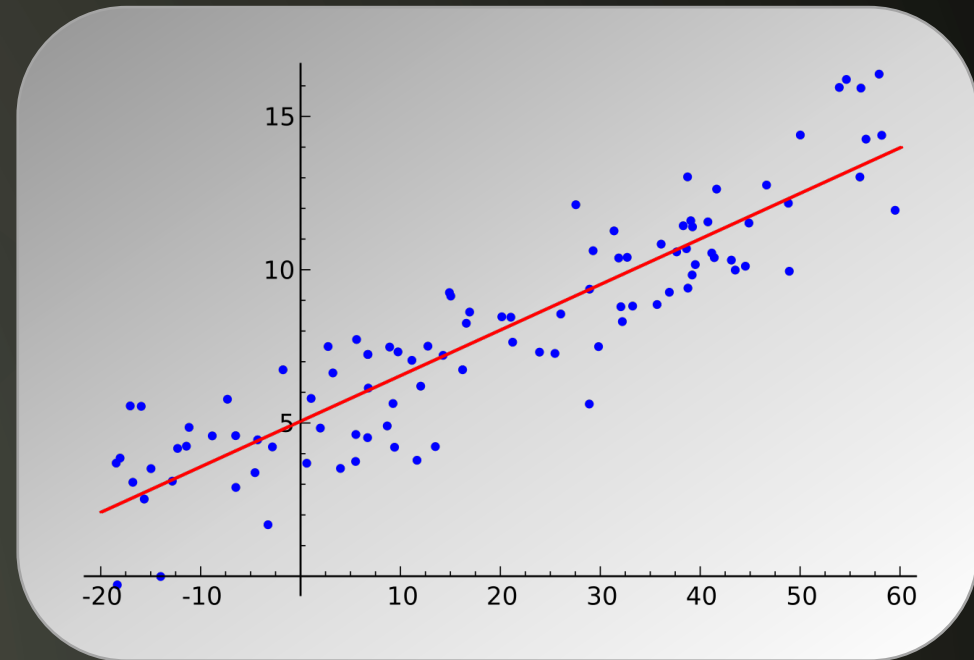
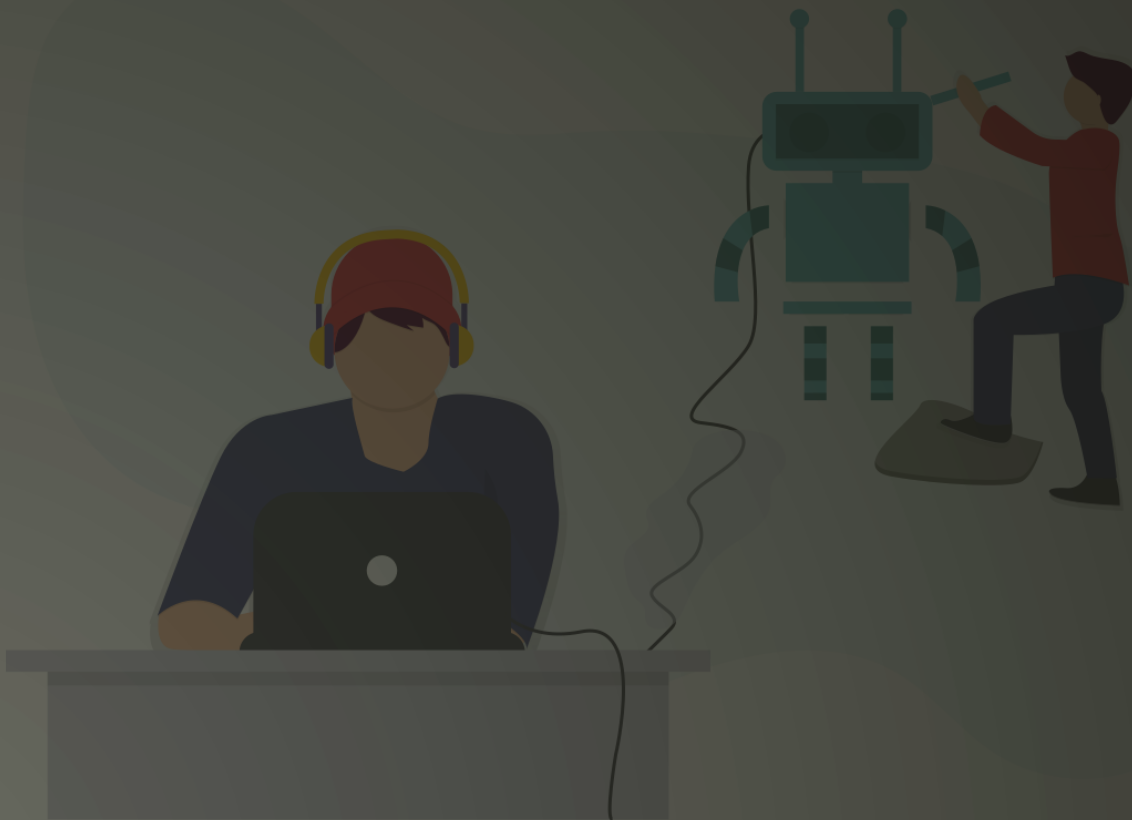


MACHINE LEARNING

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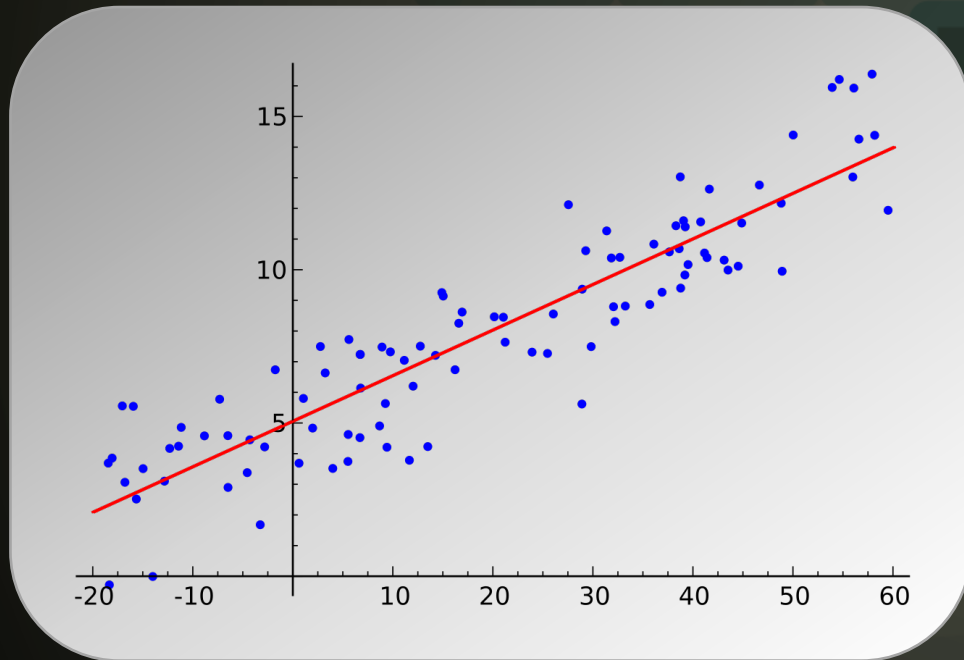
What is Linear Regression

Linear regression is a **linear** approach to modeling the relationship between dependent variable and one or more independent variables.



Types of Linear Regression

Simple Linear Regression



Multiple Linear Regression

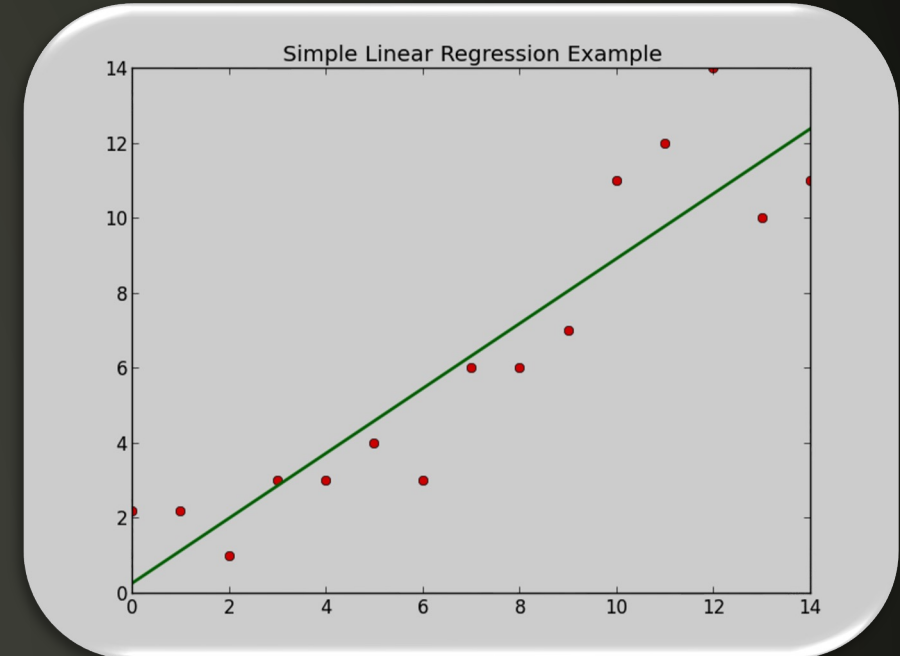


What is Simple Linear Regression

Simple linear regression is a **regression model** that estimates the relationship between one independent variable and one dependent variable using a straight line. Both variables should be quantitative.

$$y = mx + c$$

X is the independent variable while **Y** is the dependent variable. This means changes in **Y** doesn't affect **X** but changes in **X** affect **Y**



Linear Regression Model

1

```
from sklearn.linear_model import LinearRegression
```

2

```
regressor = LinearRegression()
```

3

```
regressor.fit(X_train, y_train)
```

4

```
y_pred = regressor.predict(X_test)
```