

Getting Started With Regression in Machine Learning: A Beginner's Guide



Regression is a type of machine learning algorithm that is used to model the relationship between a dependent variable and one or more independent variables. **The goal of regression is to find the line of best fit** that accurately represents the relationship between the variables, allowing us to make predictions about the dependent variable based on the values of the independent variables.

Regression algorithms are commonly **used in a wide range of applications, including finance, economics, and marketing.** *For example, they can be used to predict stock prices, forecast sales, or understand the factors that influence customer behaviour.*

There are several different types of regression algorithms, each with its own strengths and weaknesses. **Some of the most common types of regression include:**

- **Linear regression:** This is the most basic type of regression algorithm, and it assumes that the relationship between the dependent and independent variables is linear. Linear regression is used when there is only one independent variable.
- **Multiple linear regression:** This type of regression is similar to linear regression, but it is used when there are multiple

independent variables. The goal is still to find the line of best fit that accurately represents the relationship between the variables.

- **Polynomial regression:** This type of regression is used when the relationship between the dependent and independent variables is non-linear. The algorithm uses a polynomial function to model the relationship between the variables, allowing it to capture more complex patterns in the data.
- **Logistic regression:** This type of regression is used when the dependent variable is binary (i.e., it can only take on two values, such as “yes” or “no”). Logistic regression is commonly used in classification tasks, where the goal is to predict which class a data point belongs to.

Summary

Overall, **regression is a powerful tool for understanding the relationship between variables, and it is widely used in a variety of applications.** By finding the line of best fit that accurately represents the relationship between the variables, regression algorithms allow us to make predictions and gain valuable insights into complex data.

Happy Learning!!!



For practical implementation visit my [Github](#) repository.

About the Author: I am Ambarish, A Data Science Enthusiast. I'm currently learning Machine Learning/Deep Learning/NLP/Computer Vision and If you have any questions please connect with me on my [Linkedin](#) profile.

