

Multi Linear regression

Multiple linear regression

Multiple linear regression is used to estimate the relationship between **two or more independent variables** and **one dependent variable**.

Multiple linear regression equation

$$y = m_1x_1 + m_2x_2 + m_3x_3 + b$$

area	bedrooms	age	price
2600	3	20	550000
3000	4	15	565000
3200		18	610000
3600	3	30	595000
4000	5	8	760000
4100	6	8	810000

Given these home prices find out price of a home that has,

3000 sqr ft area, 3 bedrooms, 40 year old

2500 sqr ft area, 4 bedrooms, 5 year old

Dependent variable

Independent variables (**features**)

$$price = m_1 * area + m_2 * bedrooms + m_3 * age + b$$

Coefficients

$$y = m_1 x_1 + m_2 x_2 + m_3 x_3 + b$$

hiring.csv contains hiring statics for a firm such as experience of candidate, his written test score and personal interview score. Based on these 3 factors, HR will decide the salary. Given this data, you need to build a machine learning model for HR department that can help them decide salaries for future candidates. Using this predict salaries for following candidates,

2 yr experience, 9 test score, 6 interview score

12 yr experience, 10 test score, 10 interview score