

Simple Linear Regression

This project demonstrates how to implement a Simple Linear Regression model using Python and the scikit-learn library. The goal is to predict salaries based on years of experience.

Steps

- Importing Libraries
- Reading the Dataset
- Splitting the Dataset
- Training the Model
- Making Predictions
- Visualizing Results

Key Learnings

- How to preprocess and split a dataset for machine learning.
- Understanding and applying Simple Linear Regression.
- Visualizing regression results using scatter plots and line graphs.
- Using scikit-learn for training and prediction.
- Importance of train/test split for model validation.

Sample Output

- The regression line fits a linear trend showing how salary increases with experience.
- The model generalizes well with clear predictions on test data.