```python
#import libraries for data model
import matplotlib.pyplot as plt
import numpy as np
from sklearn import datasets, linear_model
import pandas as pd
from sklearn.model_selection import train_test_split


#loading dataset
dataset=pd.read_csv("accelerometer.csv")


#splitting to independent(x) and dependent(y) variables
x=dataset.iloc[:,2].values
y=dataset.iloc[:,3].values


#train and test data split
x_train, x_test, y_train, y_test = train_test_split(x, y, test_size = 1/3, random_state =0)


#reshaping array to convert them from 1D to 2D array
x_test = x_test.reshape(-1, 1)
x_train = x_train.reshape(-1,1)

#"lin_reg" is our model calling model "LinearRegression()"
regr = linear_model.LinearRegression()


#fitting our data in linear regression model
regr.fit(x_train,y_train)
```

```
▾ LinearRegression
LinearRegression()
```

```python
#making predictions for output
regr_pred = regr.predict(x_test)

print("Coeffifient:\n", regr.coef_)
print("Intercept:\n", regr.intercept_)
```
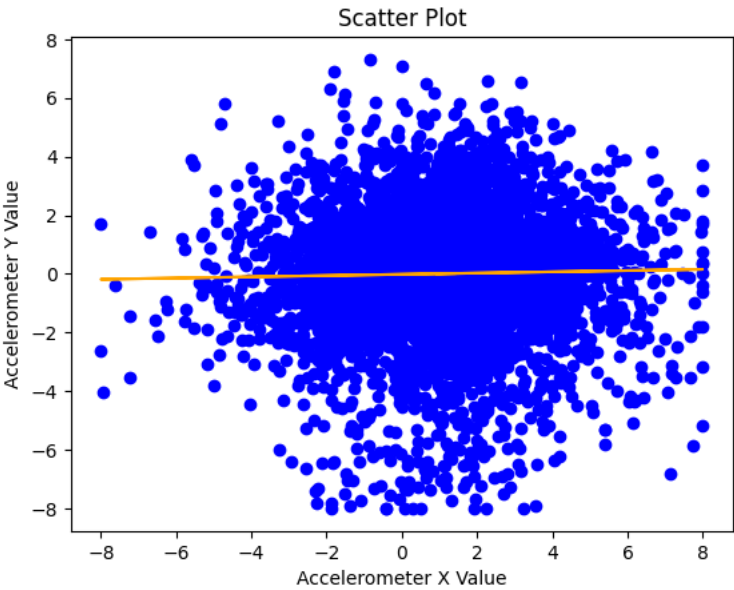
```
Coeffifient:
 [0.02127525]
Intercept:
 -0.017768113030950605
```

```python
#plotting graph for test dataset
plt.scatter(x_test, y_test, color = 'blue')
plt.plot(x_test, regr_pred, color = 'orange')
plt.title("Scatter Plot")
plt.xlabel("Accelerometer X Value")
plt.ylabel("Accelerometer Y Value")
plt.show()
```

Scatter Plot

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