Random_Forest_regression

October 23, 2021

1 Random Forest Regression

1.1 Importing the libraries

[1]:
```
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

1.2 Importing the dataset

[2]:
```
dataset = pd.read_csv('Position_Salaries.csv')
X = dataset.iloc[:, 1:-1].values
y = dataset.iloc[:, -1].values
```

1.3 Training the Random Forest Regression model on the whole dataset

[3]:
```
from sklearn.ensemble import RandomForestRegressor
regressor = RandomForestRegressor(n_estimators =10, random_state = 0)
regressor.fit(X, y)
```

[3]:
```
RandomForestRegressor(n_estimators=10, random_state=0)
```

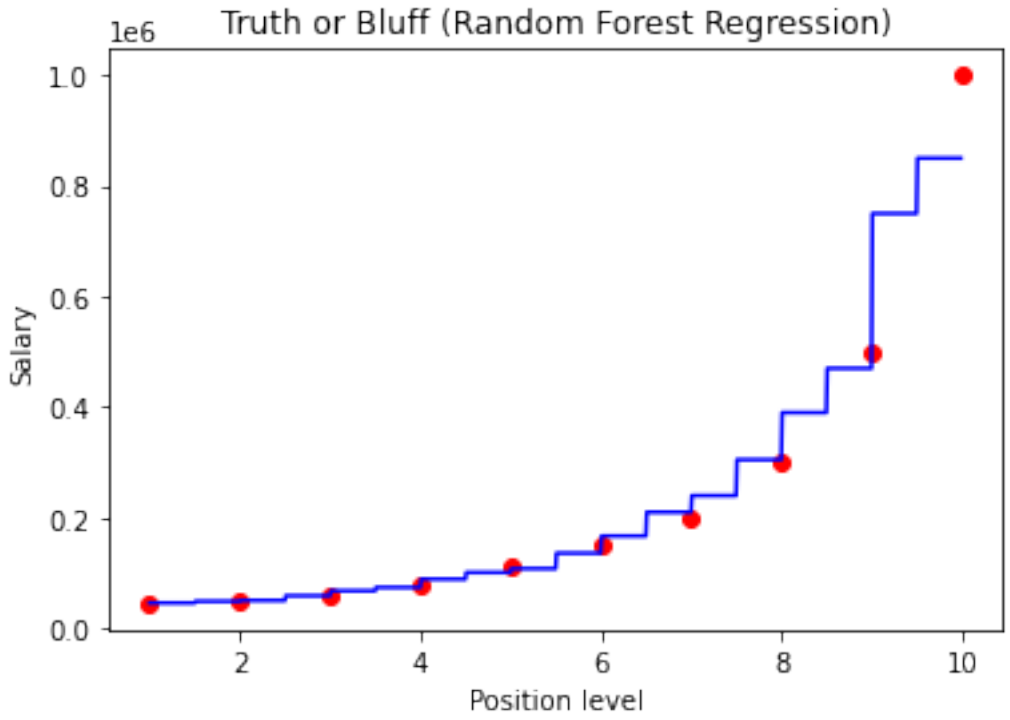
1.4 Predicting a new result

[4]:
```
regressor.predict([[6.5]])
```

[4]:
```
array([167000.])
```

1.5 Visualising the Random Forest Regression results (higher resolution)

[7]:
```
X_grid = np.arange(min(X), max(X), 0.01)
X_grid = X_grid.reshape((len(X_grid), 1))
plt.scatter(X, y, color = 'red')
plt.plot(X_grid, regressor.predict(X_grid), color = 'blue')
plt.title('Truth or Bluff (Random Forest Regression)')
plt.xlabel('Position level')
plt.ylabel('Salary')
plt.show()
```



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