Interpreting Regression Parameters: Takeaways

Syntax

- Instantiating a `LinearRegression` object:

```
from sklearn.linear_model import LinearRegression
model = LinearRegression()
```

- Fitting a `LinearRegression` object to data:

```
model.fit(X, y)
```

- Returning the intercept and coefficients of a fitted model:

```
model.intercept_
model.coef_
```

Concepts

- The intercept is the average outcome when all of the predictor variables in the model are zero. This could also mean that it is the average outcome for a single or multiple reference groups if categorical variables are used in the model.
- The coefficient associated with a predictor should be interpreted as the change in the average outcome for a unit change in the predictor. For categorical variables, a unit change signifies a change in the category for a categorical variable.
- Coefficient interpretations are highly dependent on what variables are used in the model! Always check what it means for predictors to be 0, and determine whether or not this is meaningful.