

## Linear Regression

- Basically just drawing a line over and over and over again
  - Makes a line and adjusts it based on training data over and over again based on the learning rate
- Is fastest type of model
- Explicitly numeric data is best for linear regression
- Pseudocode to create a linear regression model
  - Clean the data
  - Make a random guess with the line
  - Compare the line made to a training point
  - Move the line to match the training point more closely using your learning rate
  - Move B value
- Residuals
  - The differences between observed and predicted values of data
  - Basically how much the model deviates from the actual points

## Polynomial Regression

- A polynomial line
  - Different from a linear  $y=mx + b$  line
- Pseudocode
  - Effectively same as linear but for a  $ax^2 + bx + c$  curve