Predicting Continuous Numeric Values

With some of the data can be approximated with somewhat accurate results, polynomial models have a sufficient amount

Polynomial regression: A type of approximation that allows for complex approximations of data

Linear regression: is a subset of polynomial regression

Pseudocode algorithm for polynomial regression: First look at your data, make a rough estimate of the different polynomial regression coefficients, then you pick a really small value of how much you change the different coefficients(they must not change the approximation that much), then you make a bunch of different copies with slightly different coefficients & you pick the most accurate one, or if none of them are good then you redo the slightly different coefficients, make sure you keep the best models of each time so that you can go back if you did something wrong, repeat until you get a model with at least a certain accuracy.

MSE(Mean square error): A type of check for approximations that checks how accurate it is throughout different values, it uses the distance from the closest point on the approximation to calculate it, it is used to score different models.

Decision tree regression: a type of approximation that allows for specific approximations when data suddenly and abruptly changes.

The best data for decision tree regression is for data that suddenly changes.

first make an algorithm that groups specific closely related values(points that are within a certain distance of each other), then take the average of that area and close a specific shape around it, do this for all different values.

RMSE

While linear regression models are useful in many contexts for rough estimates, using polynomial regression allows a greater degree of accuracy, this may be at the expense of efficiency.