Gradient Decent

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Overview

Gradient decent is a tool used to minimize error between some function and actual data. We use gradient decent to dynamically modify our function until we reach a line of best fit. After several iterations, the function will approximate future data points, allowing us to make predictions.

The error function $\sum_0^n \sqrt{(d(x_i) - f(x_i))^2}$ gives us the sum of squares of error for each point in the data set vs our predictive function f(x).