

Implementing gradient descent

Okay, now we know how to update our weights:

$$\Delta w_{ij} = \eta * \delta_j * x_i,$$

You've seen how to implement that for a single update, but how do we translate that code to calculate many weight updates so our network will learn?

As an example, I'm going to have you use gradient descent to train a network on graduate school admissions data (found at <http://www.ats.ucla.edu/stat/data/binary.csv>). This dataset has three input features: GRE score, GPA, and the rank of the undergraduate school (numbered 1 through 4). Institutions with rank 1 have the highest prestige, those with rank 4 have the lowest.

