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**Class 8 - A Brief Introduction to Boosting**

AdaBoosting (which is short for Adaptive-Boosting) is a technique introduced in 1995 which provides a general method for improving the accuracy of any given learning algorithm. The paper covers the general mechanisms of AdaBoosting, in which a distribution of weights in a weak-learner is making a prediction over a given input space. AdaBoosting works by adding additional importance to data-points which are specifically hard to classify, so that when the next weak-learner is trained over the distribution it must more strongly consider these more difficult data-points.

There are pros and cons to AdaBoosting. One such pro is that this method is “adaptive” meaning it adapts to the error of previous weak learners, which makes this an overfitting-resistant method. A con is that without a sufficiently large dataset, one can no longer expect a significant performance boost in accuracy.