

Perceptron Algorithm

Binary Classification Tasks

When is Perceptron used?

Supervised learning, is a subcategory of Machine Learning, where learning data is **labeled**, meaning that for each of the examples used to train the perceptron, the output is known in advance.

When considering what kinds of problems a **perceptron** is useful for, we can determine that it's good for tasks where we want to predict if an input belongs in one of two categories, based on its features and the features of inputs that are known to belong to one of those two categories.

These tasks are called **binary classification tasks**. Real-world examples include email spam filtering, search result indexing, medical evaluations, financial predictions, and, well, almost anything that is "binarily classifiable."

Linear Boundaries

We have students that either go accepted or rejected for a school. We can create a line that separates in order to predict the outcome.