

# Support Vector Machine

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# What is machine learning?

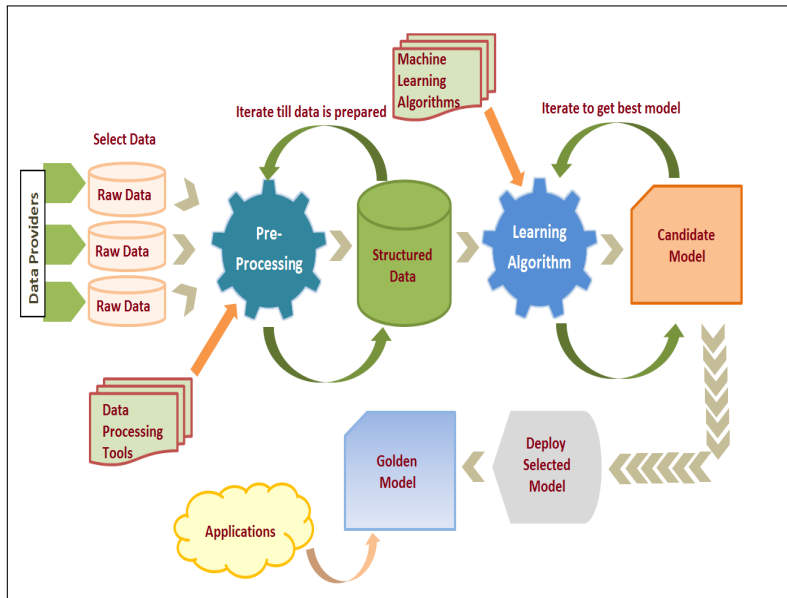
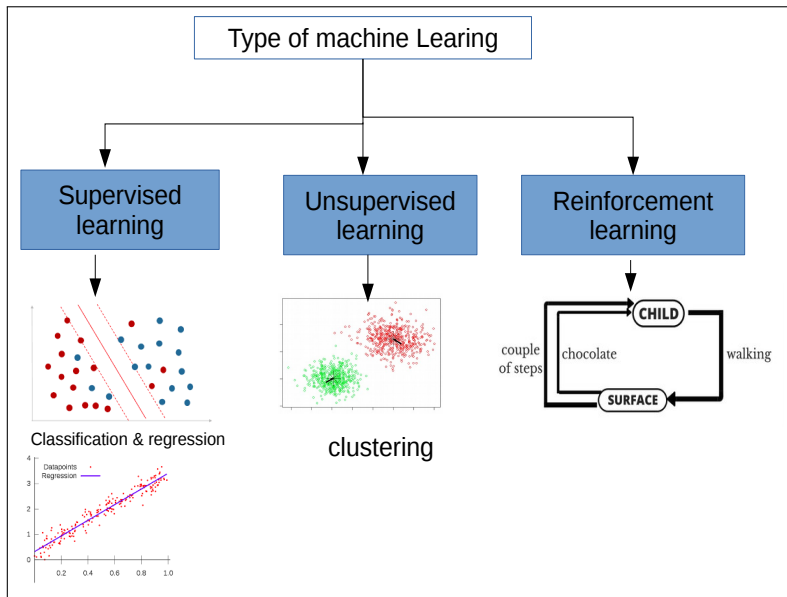


Figure: Steps in learning a machine.

# Types of machine learning?



# Support Vector Machine

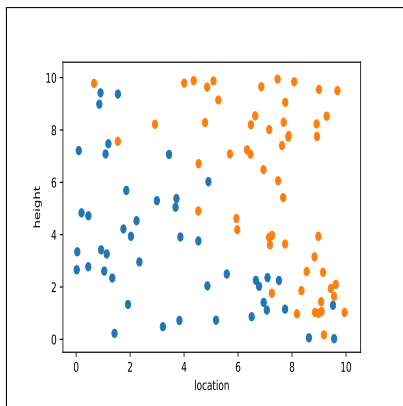


Figure: Binary class data

## Contd...

We will consider binary classification problem. Hypothesis function is a hyperplane which is an extension of line in more than 2-D. Eq. of an hyperplane looks like:

$$h(\mathbf{x}) = \mathbf{w}^T \mathbf{x} + b \quad (1)$$