



TEXAS ADVANCED COMPUTING CENTER

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TEXAS

The University of Texas at Austin

Introduction to Machine Learning

What is Machine Learning ? (...the short version)

Machine learning is about using some properties of a dataset to make assumptions and then testing those assumptions against another data set to see if they are true and/or how well they work.



MATH Gang

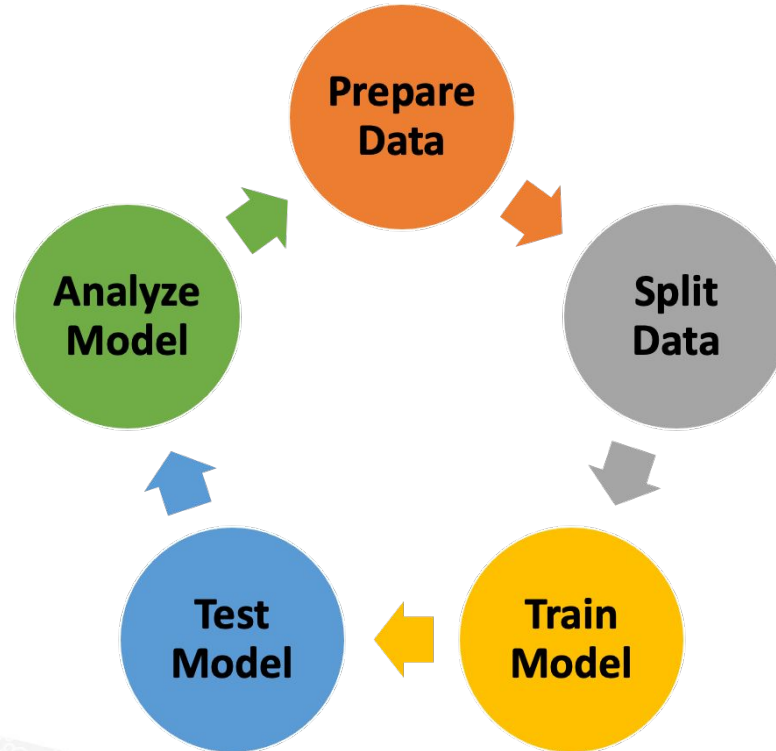
Types of Machine Learning

- **Supervised learning**, in which the data comes with additional attributes that we want to predict This problem can be either:
 - **Classification**: samples belong to two or more classes and we want to learn from already labeled data how to predict the class of unlabeled data.
 - **Regression**, the desired output consists of one or more continuous variables, then the task is called regression.
- **Unsupervised learning**, the training data consists of a set of input vectors x without any corresponding target values. The goal in such problems may be to discover groups of similar examples.

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How does it work?



Demo Time!

