

# Mathematical Fundamentals for Machine Learning Algorithms

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## Types of Machine Learning Algorithms

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**Supervised Learning**

**Unsupervised Learning**

**Reinforcement Learning**

## Algorithms

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**Decision Tree Algorithm**

**Structure of Trees**

**Impurity**

**Measure of Purity**

**Entropy**

**Gini Index**

**Information Gain**

**CART(Classification and Regression Tree )**

**ID-3**

**Random Forest Algorithm**

**Logistic Regression Algorithm**

**Support Vector Machine Algorithm**

**XGBoost Algorithm**

**Gaussian Naive Bayes Algorithm**