Machine Learning Documentation

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* General roadmap to become a data scientist
  + Overview of role
  + Tools used – Tools to cover:
    - NLTK
    - SciKit
    - Visualisation Libraries – Include image of graph choice based on problem/goal
    - TensorFlow
    - SQL
    - Azure – ML/General UI
* **Remember to use images**

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1. Introduction (Pg. 3 – X)

Introduction:

Machine Learning Models:

In this section I will cover various machine learning models. Each model will have comprehensive notes about; what the model is, what the model does and what its use case is.

There are three types of machine learning models: Supervised, Unsupervised & Reinforcement Learning. Detailed notes on each class of model can be found in their respective sections.

Diagram

Description automatically generated

**Supervised Learning Models:**

A model that uses labelled data to train the machine. The output(s) are known, the machine just needs to class the input accordingly.

For example, our data has 2 labels/classes; ‘cats’ and ‘dogs’, with various features such as ‘bark’ (1/0) and ‘purrs (1/0). We use a classification model to see what class our input animal is.

1. The animal barks – the model will predict the animal to be a dog.
2. The animal purrs – the model will predict the animal to be a cat.

**Linear Regression – Single Variable:**

Mathematical Theory Behind ML

**Linear Algebra:**

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