Machine Learning Vocabulary Reference Sheet

**Artificial Intelligence** – the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages

**Deep Learning** – a type of machine learning based on artificial neural networks in which multiple layers of processing are used to extract progressively higher level features from data

**Feature** – an individual measurable property or characteristic of a phenomenon

**Instance** – a single object from which a model will be learned, or on which a model will be used

**Label** – the output result that classifies an object

**Machine Learning** – the use and development of computer systems that are able to learn and adapt without following explicit instructions, by using algorithms and statistical models to analyze and draw inferences from patterns in data

**Neural Network** – a computational learning system that uses a network of functions to understand and translate a data input of one form into a desired output, usually in another form

**Reinforcement Learning** – a machine learning training method based on rewarding desired behaviors and/or punishing undesired ones

**Supervised Learning** – an approach to creating artificial intelligence, where a computer algorithm is trained on input data that has been labeled for a particular output

**Testing Data** – the objects used to test how good your machine learning program is now that it is fully trained. You use this data once the ‘settings’ of the machine learning program are set and the program no longer needs any more training

**Training Data** – the objects used to train your machine learning program. Once used by the program, the data should not be used again

**Unsupervised Learning** – an approach to creating artificial intelligence, where a computer algorithm infers patterns within datasets without reference to known, or labeled, outcomes