Machine learning

International Baccalaureate · IB Diploma · Computer Science · HL · Vocabulary in context

Word	Example
machine learning /məˈʃiːn ˈlɜːnɪŋ/	**Machine learning** lets a computer learn from examples.
artificial intelligence /ˌɑːtɪˈfɪʃl ɪnˈtelɪdʒəns/	**Artificial intelligence** lets computers do tasks that need thinking.
deep learning /diːp ˈlɜːnɪŋ/	**Deep learning** can recognise faces.
supervised learning /ˈsuːpəvaɪzd ˈlɜːnɪŋ/	In **supervised learning**, the training data has labels.
unsupervised learning /ʌnˈsuːpəvaɪzd ˈlɜːnɪŋ/	In **unsupervised learning**, the data has no labels.
reinforcement learning /ˌriːɪnˈfɔːsmənt ˈlɜːnɪŋ/	In **reinforcement learning**, the program learns from rewards.
classification /ˌklæsɪfɪˈkeɪʃn/	**Classification** sorts emails into spam and not spam.
regression /rɪˈgreʃn/	**Regression** predicts a number, such as a house price.
training /ˈtreɪnɪŋ/	**Training** means showing a model many examples so it can learn.
test data /test ˈdeɪtə/	**Test data** checks the model on examples it has not seen.
overfitting	**Overfitting** means the model learns the training data too closely.

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accuracy /ˈækjʊrəsi/	**Accuracy** is the share of all predictions that are correct.
bias /ˈbaɪəs/	A program trained on unfair data can show **bias**.
data preprocessing	**Data preprocessing** cleans and prepares data before training.
feature selection	**Feature selection** chooses the most useful inputs.
feature	Height is one **feature** used to predict weight.
label /ˈleɪbl/	The **label** LOOP marks the start of the loop. LOOP
data leakage /ˈdeɪtə ˈliːkɪdʒ/	**Data leakage** happens when test answers sneak into the training data.
linear regression /ˈlɪnɪə rɪˈgreʃn/	**Linear regression** fits a straight line to the data.
k-nearest neighbour	**K-nearest neighbour** labels a point by looking at its closest neighbours.
decision tree /dɪˈsɪʒn triː/	A **decision tree** shows choices, chances and possible results.
k-means clustering	**K-means clustering** groups points around k centres. k
artificial neural network	An **artificial neural network** learns patterns, a little like the brain.
weight /weɪt/	The **weight** on the edge is the distance.
confusion matrix	A **confusion matrix** counts correct and wrong predictions for each class.

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