Deep Learning and Machine Learning Lesson Glossary

Welcome! This alphabetized glossary contains many of the terms in this course. These terms are important for you to recognize when working in the industry, participating in user groups, and participating in other certificate programs.

Term	Definition	Video where the term is introduced
Artificial Neural Networks	Collections of small computing units (neurons) that process data and learn to make decisions over time.	Artificial Intelligence and Data Science
Bayesian Analysis	A statistical technique that uses Bayes' theorem to update probabilities based on new evidence.	Applications of Machine Learning
Business Insights	Accurate insights and reports generated by generative AI can be updated as data evolves, enhancing decision-making and uncovering hidden patterns.	Generative AI and Data Science
Cluster Analysis	The process of grouping similar data points together based on certain features or attributes.	Neural Networks and Deep Learning
Coding Automation	Using generative AI to automatically generate and test software code for constructing analytical models, freeing data scientists to focus on higher-level tasks.	Generative AI and Data Science
Data Mining	The process of automatically searching and analyzing data to discover patterns and insights that were previously unknown.	Artificial Intelligence and Data Science
Decision Trees	A type of machine learning algorithm used for decision-making by creating a tree-like structure of decisions.	Applications of Machine Learning
Deep Learning Models	Includes Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs) that create new data instances by learning patterns from large datasets.	Generative AI and Data Science
Five V's of Big Data	Characteristics used to describe big data: Velocity, volume, variety, veracity, and value.	Neural Networks and Deep Learning
Generative AI	A subset of AI that focuses on creating new data, such as images, music, text, or code, rather than just analyzing existing data.	Generative AI and Data Science
Market Basket Analysis	Analyzing which goods tend to be bought together is often used for marketing insights.	Neural Networks and Deep Learning
Naive Bayes	A simple probabilistic classification algorithm based on Bayes' theorem.	Applications of Machine Learning
Natural Language Processing (NLP)	A field of AI that enables machines to understand, generate, and interact with human language, revolutionizing content creation and chatbots.	Generative AI and Data Science
Precision vs. Recall	Metrics are used to evaluate the performance of classification models.	Applications of Machine Learning
Predictive Analytics	Using machine learning techniques to predict future outcomes or events.	Neural Networks and Deep Learning
Synthetic Data	Artificially generated data with properties similar to real data, used by data scientists to augment their datasets and improve model training.	Generative AI and Data Science