### Glossary

| **Term** | **Definition** |
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| Machine Learning | Systems that learn and improve from data without explicit programming |
| Deep Learning | Subset of ML using multi‑layer neural networks to analyze large-scale data |
| Artificial Intelligence | Field of computer science creating systems that mimic human intelligence |
| Predictive Analytics | Use of statistical models and ML algorithms to predict future outcomes |
| Clustering | Unsupervised method grouping similar data points |
| Classification | Supervised method assigning data points to predefined categories |
| Regression | Method predicting continuous numeric values |
| Association Rules | Discovering relationships between variables (IF–THEN statements) |
| Reinforcement Learning | Learning via rewards and penalties to maximize cumulative reward |
| Dimensionality Reduction | Reducing number of features while preserving key information |