

Name _____

Magic in Numbers: How Machine Learning Powers Big Data Analytics

Open-Ended Response Answer Key

1. (Sample answer) Machine learning is used in healthcare for image analysis, such as detecting tumors in medical images. This improves early diagnosis and treatment planning.
2. (Sample answer) As a data scientist, I would start by identifying missing values, removing duplicates, and standardizing data formats to ensure data quality.
3. (Sample answer) Machine learning can optimize supply chain management by predicting demand, optimizing inventory levels, and improving logistics, leading to cost savings.
4. (Sample answer) Bias in machine learning algorithms occurs when they favor certain groups or make unfair decisions. It can be mitigated by carefully selecting and cleaning training data and regularly auditing algorithms for fairness.

