

# 11 Terms You Need to Know

## Algorithm

A set of step-by-step instructions or rules given to a computer to perform a specific task. Think of it as a recipe that guides the computer in solving a problem.

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## Big data

Extremely large sets of data that can be analyzed for patterns and insights. Machine learning relies on large data sets to train models to solve tasks.

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## Deep learning

A type of machine learning inspired by the human brain. Deep learning uses multilayered neural networks, aka deep neural networks, to analyze and learn from data to make predictions. Used for complex tasks like image and speech recognition.

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## Large language models (LLMs)

A type of generative AI that can produce text. LLMs are trained on very large data sets of text, such as Wikipedia, to understand, translate, and/or create written text in a way that mimics humans.

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## Neural networks

A computer system inspired by the human brain's structure. Neural networks are used in machine learning to recognize patterns and make decisions. Imagine it as a network of connected nodes that work together to solve problems.

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## Robotics

The design, construction, and operation of hardware that in some cases may mimic the operations and tasks usually performed by humans. Robots are machines that can carry out tasks autonomously or semi-autonomously, often with the help of AI.

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## Artificial intelligence (AI)

Machines or computer systems that can perform tasks that typically require human intelligence and/or mimic human behavior (e.g., learning, reasoning, problem solving, perception, understanding language, human interaction).

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## Data science

A field that combines analytics, statistics, data management, machine learning, AI, mathematics, computer programming, and visualizations to identify insights in information.

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## Generative AI

A type of AI trained to find patterns in data to create new material (e.g., images, text, music), without explicit instructions. It uses complex algorithms to generate material that can range from innovative and surprising to inaccurate and misleading. Example: ChatGPT.

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## Machine learning

A subset of AI algorithms that teaches a computer to recognize patterns and make decisions on its own. Machine learning enables computers to learn and improve from experience or access to labeled data without being explicitly programmed.

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## Natural language processing (NLP)

A field of AI that focuses on enabling machines to understand, interpret, and generate human language. It makes voice assistants and language translation possible.

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