

Question #1 of 10

The technique in which a machine learns to model a set of output data from a given set of inputs is *best* described as:

- A) supervised learning.
- B) deep learning.
- C) unsupervised learning.



Explanation

Supervised learning is a machine learning technique in which a machine is given labelled input and output data and models the output data based on the input data. In unsupervised learning, a machine is given input data in which to identify patterns and relationships, but no output data to model. Deep learning is a technique to identify patterns of increasing complexity and may use supervised or unsupervised learning.

(Study Session 2, Module 6.1, LOS 6.b)

Related Material

[SchweserNotes - Book 1](#)

Question #2 of 10

Which of the following uses of data is *most accurately* described as curation?

- A) An analyst adjusts daily stock index data from two countries for their different market holidays.
- B) An investor creates a word cloud from financial analysts' recent research reports about a company.
- C) A data technician accesses an offsite archive to retrieve data that has been stored there.



Explanation

Curation is ensuring the quality of data, for example by adjusting for bad or missing data. Word clouds are a visualization technique. Moving data from a storage medium to where they are needed is referred to as transfer.




(Study Session 2, Module 6.1, LOS 6.b)

Related Material

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Question #3 of 10

Artificial intelligence is *best* described as:

- A) computer systems that emulate human thinking. 
- B) networks of "smart" devices and buildings. 
- C) field of study concerned with extracting information from data. 

Explanation

Artificial intelligence refers to computer systems that emulate the functioning of the human mind. Networks of "smart" devices and buildings are referred to as the Internet of Things. Data science is the field of study concerned with extracting information from data.




(Study Session 2, Module 6.1, LOS 6.b)

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Question #4 of 10

Investors in an initial coin offering (ICO) typically receive:

- A) cryptocurrency. 
- B) voting rights in the ICO issuer. 
- C) registered securities. 

Explanation

An initial coin offering is a sale of cryptocurrency to investors in exchange for cash or another cryptocurrency.

(Study Session 2, Module 6.1, LOS 6.d)

Related Material

SchweserNotes - Book 1

Question #5 of 10

An executive describes her company's "low latency, multiple terabyte" requirements for managing Big Data. To which characteristics of Big Data is the executive referring?

- A) Volume and velocity.
- B) Volume and variety.
- C) Velocity and variety.



Explanation

Big Data may be characterized by its volume (the amount of data available), velocity (the speed at which data are communicated), and variety (degrees of structure in which data exist). "Terabyte" is a measure of volume. "Latency" refers to velocity.

(Study Session 2, Module 6.1, LOS 6.b)

Related Material

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Question #6 of 10

Robo-advisory services are *most likely* to be appropriate for an investor who is interested in:

- A) high-frequency trading.
- B) traditional asset classes.
- C) actively managed investments.



Explanation

Robo-advisory services typically offer passively managed investments in traditional asset classes. High-frequency trading refers to intraday arbitrage trading with computer algorithms.

(Study Session 2, Module 6.1, LOS 6.c)

Related Material

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Question #7 of 10

Determining the optimal execution instructions for an order to buy a security is *most likely* to be an application of:

A) natural language processing.



B) algorithmic trading.



C) text analytics.



Explanation

One of the potential applications of algorithmic trading is entering the optimal execution instructions for a trade. Text analytics is used for interpreting unstructured text or voice data. Natural language processing is used for applications such as language translation and speech recognition.

(Study Session 2, Module 6.1, LOS 6.c)

Related Material

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Question #8 of 10

Which of the following statements about fintech is *most accurate*?

A) Fintech companies include those that develop technology for the financial services industry.



B) Financial services that involve subjective judgment, such as investment advice, are unlikely to be affected by fintech.



C) A primary driver of fintech is the increasingly structured nature of data that firms must process.



Explanation

The term "fintech" refers to technological developments with potential applications in financial services, as well as to the industry that develops these technologies. While firms must process an increasing volume of data, a large portion of that data exists in unstructured forms. Automated investment advice is a potential application of fintech.

(Study Session 2, Module 6.1, LOS 6.a)

Related Material

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Question #9 of 10

A government decides it will privatize vehicle registrations if the province's auto insurance companies can record and maintain ownership titles using distributed ledger technology. This application of distributed ledger technology is *best* characterized as:

A) tokenization.



B) blockchain.



C) smart contracts.



Explanation

Tokenization refers to maintaining ownership records for physical assets on a distributed ledger. This might, but would not necessarily, use a blockchain, which is a subcategory of distributed ledgers. Smart contracts are computerized agreements designed to automatically carry out certain actions if defined conditions are met.

(Study Session 2, Module 6.1, LOS 6.d)

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Question #10 of 10

Under which of these conditions is a machine learning model said to be underfit?

A) The model treats true parameters as noise.



B) The input data are not labelled.



C) The model identifies spurious relationships.



Explanation

Underfitting describes a machine learning model that is not complex enough to describe the data it is meant to analyze. An underfit model treats true parameters as noise and fails to identify the actual patterns and relationships. A model that is overfit (too complex) will tend to identify spurious relationships in the data. Labelling of input data is related to the use of supervised or unsupervised machine learning techniques.

(Study Session 2, Module 6.1, LOS 6.b)

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