

Attempt 1 of 1

Written Jan 21, 2025 5:01 PM - Jan 21, 2025 5:11 PM

Attempt Score 9.5 / 10 - 95 %

Overall Grade (Highest Attempt) 9.5 / 10 - 95 %

Question 1

1 / 1 point

Which of the following is **NOT** a natural language?

- ☒ First order logic
- ☐ English
- ☒ C++
- ☒ C#

Question 2

1 / 1 point

Which of the following statements about the multi-modal GPT-4o is **CORRECT**?

- ☒ GPT-4o can receive video input
- ☒ GPT-4o can generate stories
- ☐ GPT-4o cannot generate codes
- ☒ GPT-4o can understand audio input

Question 3

1 / 1 point

Given a fixed word vocabulary, we should expand the vocabulary when one word is not included in the vocabulary during preprocessing

- ☐ True
- ☒ False

Question 4

1 / 1 point

Which of the following procedure is **NOT** a standard step for classification tasks?

- ☐ Feature extraction
- ☐ Evaluation
- ☒ Human study
- ☐ Preprocessing

Question 5

1 / 1 point

Output of feature extractors are feature vectors

- ☒ True
- ☐ False

Question 6

1 / 1 point

Which of the following task is **NOT** a classification task?

- ☒ Predicting stock price in the next few days
- ☐ Grouping images into different categories such as tree, flower, etc
- ☐ Predicting book genres from one of labels, e.g., fiction, narrative, etc
- ☐ Sentiment analysis

Question 7

1 / 1 point

Which statement about feature extraction is **WRONG**?

- ☐ Negation words are important for sentiment analysis
- ☒ Stop words are useless for sentiment analysis
- ☒ Capitalization is a significant feature for sentiment analysis
- ☐ Deep learning automatically learns feature representations for different tasks

▼ Hide question 7 feedback

Feedback

Due to the obscure definition of stop words, we grant all attempts 1 point.

Question 8

0.5 / 1 point

Which of the following methods could be used for preprocessing?

- ☒ Removing extra spaces
- ☒ Substituting words with their synonyms
- ☒ Contracting and standardizing
- ☒ Stemming

Question 9

1 / 1 point

Considering a classification task where ground-truth labels are [1, 0, 0, 1], suppose we have a model with predicted labels [1, 1, 1, 0], then precision of predictions is

- ☐ 3/4
- ☐ 1/2
- ☐ 1/4
- ☒ 1/3

Question 10

1 / 1 point

Given the vocabulary [first, second, third, Monday, Tuesday, January, February, equality, the], what's the corresponding bag-of-words vector representation for text "Martin Luther King Jr. Day, observed on the third Monday of January, honors the civil rights leader's legacy of promoting equality, justice, and nonviolent activism."

- ☐ [1, 1, 1, 0, 0, 0, 0, 0, 0]
- ☐ [0, 0, 1, 1, 0, 1, 0, 1, 1]
- ☐ [0, 0, 0, 1, 1, 1, 1, 0, 3]
- ☒ [0, 0, 1, 1, 0, 1, 0, 1, 3]

▼ Hide question 10 feedback

Feedback

Sorry for the confusion. Bag-of-words will treat "Luther" as a single word, hence there are two occurrences of "the" in this sentence. The correct answer should be [0,0,1,1,0,1,0,1,2]. All attempts will be graded with 1 full point.