ECS763U/ECS763P - Natural Language Processing - 2022/23 - Semester 1

Started on	Friday, 23 December 2022, 1:24 PM
State	Finished
Completed on	Friday, 23 December 2022, 1:51 PM
Time taken	26 mins 34 secs
Grade	**10.00** out of 10.00 (**100**%)

Quiz navigation

1 2 3 4 5 6 7 8 9 10

Show one page at a time

Finish review

Question 1
Correct
Mark 1.00 out of 1.00
Flag question

The interpretation of a sentence of a formal semantic language should be flexible.

Select one:
- True
- False ✔

The correct answer is 'False'.

Question 2
Correct
Mark 1.00 out of 1.00
Flag question

If you want to calculate the semantic similarity between documents using a distributional semantics approach, you would compare the columns of a _____.

Select one:
- a. term-document matrix ✔
- b. word-context matrix

The correct answer is: term-document matrix

Question 3
Correct
Mark 1.00 out of 1.00
Flag question

If you want to calculate the semantic similarity between words using a distributional semantics approach, you would compare the rows of a _____.

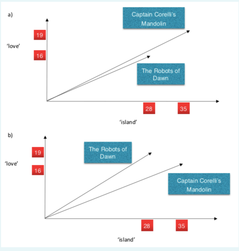
Select one:
- a. term-document matrix
- b. word-context matrix ✔

The correct answer is: word-context matrix

Question 4
Correct
Mark 1.00 out of 1.00
Flag question

See the term-document matrix for two documents, the novels `The Robots of Dawn' and `Captain Corelli's Mandolin', below. Select the correct depiction of the two vectors representing the two novels in 2-dimensional space from the two plots.

	Captain Corelli's Mandolin	The Robots of Dawn
island	35	28
love	16	19



Select one:
- a. a
- b. b ✔

The correct answer is: b

Question 5
Correct
Mark 1.00 out of 1.00
Flag question

Select which of the below is a semantic representation language.

Select one or more:
- a. Abstract Meaning Representation ✔
- b. Context Free Grammar
- c. Logical Grammar
- d. First Order Logic ✔
- e. Syntax
- f. Frames ✔

The correct answers are: First Order Logic, Abstract Meaning Representation, Frames

Question 6
Correct
Mark 1.00 out of 1.00
Flag question

The following are required for any model of First Order Logic.

Select one or more:
- a. Domain of individuals ✔
- b. Activities
- c. Times
- d. Properties ✔
- e. Events
- f. Relations ✔

The correct answers are: Domain of individuals, Properties, Relations

Question 7
Correct
Mark 1.00 out of 1.00
Flag question

Select all of the below which are vector weighting methods.

Select one or more:
- a. Positive Pointwise Mutual Information ✔
- b. Cosine similarity
- c. Kullback-Leibler Divergence
- d. Shannon-Jensen Divergence
- e. TF-IDF ✔
- f. Laplace smoothing ✔

The correct answers are: Positive Pointwise Mutual Information, TF-IDF, Laplace smoothing

Question 8
Correct
Mark 1.00 out of 1.00
Flag question

Which of these is a suitable logical representation for the semantics of the word `likes' if it was the semantics for the Verb `likes' in a Context Free Grammar tree whose semantic formulae would be compiled upwards?

Select one:
- a. $\lambda e.\lambda x.\, like(e) \wedge liker(e,x) \wedge liked(e,x)$
- b. $\exists x.\exists y.\exists e\; like(e) \wedge liker(e,x) \wedge liked(e,y)$
- c. $\lambda x.\lambda y.\exists e\; like(e) \wedge liker(e,y) \wedge liked(e,x)$ ✔
- d. $\lambda e.\lambda z.\, like(e) \wedge liker(e,z) \wedge liked(e,z)$
- e. $\lambda x.\lambda y.\exists e\; like(e) \wedge liker(e,x) \wedge liked(e,y)$

The correct answer is: $\lambda x.\lambda y.\exists e\; like(e) \wedge liker(e,y) \wedge liked(e,x)$

Question 9
Correct
Mark 1.00 out of 1.00
Flag question

Consider the below document-term matrix for the documents `Romeo and Juliet' and `Richard III' with a vector basis of the frequency of the two terms shown. Calculate the cosine similarity between the two document vectors. Give your answer to 2 DECIMAL PLACES.

	Romeo and Juliet	Richard III
battle	10	22
love	16	3

Answer: 0.64 ✔

The correct answer is: 0.64

Question 10
Correct
Mark 1.00 out of 1.00
Flag question

Consider the below document-term matrix for the documents `One Hundred Years of Solitude' and `Enron: The Smartest Guys in the Room' with a vector basis of the frequency of the two terms shown. Calculate the cosine similarity between the two document vectors. Give your answer to 2 DECIMAL PLACES.

	One Hundred Years of Solitude	Enron: The Smartest Guys in the Room
company	24	34
magic	16	4

Answer: 0.89 ✔

The correct answer is: 0.89

Finish review

◀ Zoom recording link Week 10 (sound on QReview not working)

Jump to...

Unit 9 Slides ▶