Quiz 1

Started: Jan 24 at 2:14pm

Quiz Instructions

Note: enter answers for probabilities as a fraction in [0,1]

So, a probability of 95% is 0.95.

Quiz is O.K. Skip shortcuts.

Question 1 — 15 pts

There are 2 classes C1 and C2. C1 has 10 examples in it and C2 has 15 examples in it. The example x1 is a training example for C1 appearing 1 time. What is P(C1)? (note: enter answer as a fraction in [0,1])

Question 2 — 10 pts

There are 2 classes C1 and C2. C1 has 10 examples in it and C2 has 15 examples in it. The example x1 is a training example for C1 appearing 1 time. Using Bayes rule you can determine P(x1) as

Question 3 — 15 pts

There are 2 classes C1 and C2. C1 has 10 examples in it and C2 has 15 examples in it. The example x1 is a training example for C1 appearing 1 time. Using Bayes rule you can determine P(x1|C1) as

Question 4

20 pts

There are 2 classes C1 and C2. C1 has 10 examples in it and C2 has 15 examples in it. The example x1 is a training example for C1 appearing 1 time. Using Bayes rule you can determine P(C1| x1) as

Question 5

10 pts

Two items we expect from training data are

- [ ] there are more than 1,000,000 labeled examples
- [ ] it is independently identically distributed as all other data in the domain
- [ ] it is always noise free
- [ ] it has some noise

Question 6

20 pts

Using Bayes rule for the 2 class problem with C1 and C2 what is the probability of class C1 for example x1, given P(C2) =0.3, P(x1 | C2) = 0.6, P(x1 | C1) = 0.4?

Question 7

10 pts

We want to know the confidence for a rule X and Z -> Y. If we know P(X, Y, Z) = 0.1 what else is needed to calculate a confidence of 0.8?

- P(X,Z) = 0.8
- P(X,Z) = 0.125
- P(X) = 0.8
- P(Y)= 0.1

No new data to save. Last checked at 2:25pm

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