图片包含 屏幕截图, 文字

描述已自动生成

I think we need to use the function to calculate:

Because we know the T and R

then, max(0.6\*10 0.75\*-4 0.4\*10 0.25\*-4)

for the awake it is 10

then max(0.2\*10 0.5\*-4 0.8\*0 0.5\*0)

for the tired it is 2

for the v2

because we get the 10 and 2

then max(0.6(10+10) 0.75(-4+10) 0.4(10+2) 0.25\*(-4+2))

for the awake the max is 16.5

then max(0.2\*(10+2) 0.5\*(2-4) 0.8\*10 0.5\*10)

for the tired the max is 2.4

图片包含 屏幕截图

描述已自动生成

(a)For the E1,E2,E3,E4, G1=+10, G2=+1, the A have the possible action is right and down so A = +1, A have the possible action is left and down B=+10.

(b)For the E3,E4,E1,E2,

sample = R(s,pi(s),s’) + rVpi(s’), and Vpi(s) = (2-a) Vpi(s) + (a)sample

so we think the V(a) V(b) are 0, and put V(a) V(b) to sample function to get the V(s), every Episodes have two steps that are tow movement and exit. Then, we can get the Value about exit for every Episodes

(c)the q-value for all state-action pairs(s, a) converge to their optimal value Q\*(s, a). The I follow sequences, if repeated an infinite number of times.

图片包含 屏幕截图

描述已自动生成

(a)

Naïve Bayes is P(Y|F1,...,Fn), and we have 3 spam and 4ham

Then P(Y=spam) = 3/(3+4) = 3/7

P(Y=ham) = 4/(3+4) = 4/7

Because we have 5 “you” in emails, and 2 are spam 3 are ham , then

P(W=you|Y=spam) = 2/3

P(W=you|Y=ham) = 3/4

(b)

Because P(Y|F1,...,Fn) = p(y)||p(f|y)

P(y=spam|x1…xn) and P(y=ham|x1…xn)

the “love you” in the spam is p(y=spam)

the “love you” in the ham is p(y=ham)

(c)

I think P(Y=spam | X = are you crazy)= 0.1, and P(Y=ham | X = are you crazy)=0.9 because the spam email is not sent this sentences to customer, but the friends often sent this sentences to people.

图片包含 屏幕截图

描述已自动生成

4.

(a)w1 = [1,2,-2], w2=[3,-2,-1], w3=[-1,2,4]

F(x) = [2,2.5,-1] and y = 1, then f(x) = [1, 2.5,-1] is similar with w1

(b)w1 = [1,2,-2], w2=[3,-2,-1], w3=[-1,2,4]

F(x) = [1,0.5,3] and y = 2, then f(x) = [2, 1,6] is similar with w3

5.

(a)For the auto grading English essays, the system maybe will not be able to auto grade some “words” that probably never appear in the past.

(b)For the Classifying a sketch as being a shoe or not, the system might will not able to be classify. If system only has leather shoes in his data, it can't recognize the high heels shoe.

(c) For the Predicting who will be president next, the system might will not able to predicted, when the system do not know the Public opinion began to change and Political emergency.