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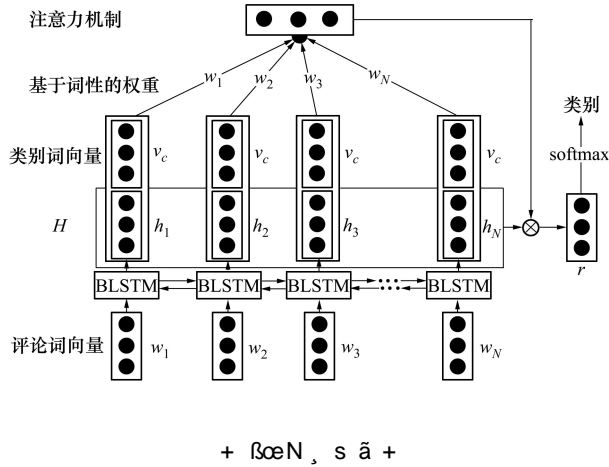
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$$X = \begin{pmatrix} h_1 \\ \vdots \\ h_N \end{pmatrix} \quad \%00$$

$$f_i = \sigma \sum_j W_{fj} x_j + b_f \quad \%00$$

$$i_i = \sigma \sum_j W_{ij} x_j + b_i \quad \%00$$

$$o_i = \sigma \sum_j W_{oj} x_j + b_o \quad \%00$$

$$g_i = \sum_j W_{gj} x_j + b_g \quad \%00$$

$$c_i = f_i \cdot c_{i-\beta} + i_i \cdot g_i \quad \%00$$

$$h_i = o_i \cdot \sum_j W_{hj} c_j \quad \%00$$

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>®ö→ Q Ú@®ç&AZ±±1" X " J[ \ >®ý ; 1" X,% ±± æ%Y ' ¬\*U" < È g c "U@DÄDô /8 Z í ' 1" X'! ®" > ' ý ; 1" X,% ±± æ\*U » 31" "Y ' g ü W1" X ±EM- W31" • %ü Ük 0v ßÖ U" < È@DÄ±±# F "& » Äi X±±ü ' DÄ' \ 90v & ² ±±%s , È 7 U Q Ú1" X # " : @ü • æ@Bq̄m! g FÜ>®±±%\*U% ' "UE =y" < È@Í 0Äz "f > ì ø @®ç±±@ü g & Á±± >Äi XDÄ' Bxµ : 9 ±±p FÜ%Y ' U ÈO' Z " • æ@ú p FÜ ßZ" : @ú ßZ" £ @ú ß%

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$$Y = \begin{pmatrix} H \\ \vdots \\ e_N \end{pmatrix} \quad \%00$$

$$Y_q = Q \cdot Y \quad \%00$$

$$M = \sum_j W_{mj} Y_j \quad \%00$$

$$\alpha = \sigma \sum_j W_{\alpha j} M_j \quad \%00$$

$$\beta = H \alpha \quad \%00$$

< Z "e\_N â t<sup>N</sup> \ i • g ß±±N 4! >Fü"v\_c ã e\_N = v\_c + c\_c + c\_c ÖY â t<sup>%Q\_h+d × N</sup> g >Äi X±±ü ' DÄ' >FÜKqí 1" X @ú FÜ" g " < È±±5±±Sý ÈJG%æY\_q â t<sup>%Q\_h+d × N</sup> F \ g Y ' » @ü Bxµ p FÜ"4 ) " < È! a ] " ; 1" X,% ±±Fú>®! ® %M â t<sup>%Q\_h+d × N</sup> "W\_m â t<sup>%Q\_h+d × %Q\_h+d</sup> "W\_α â t<sup>%Q\_h+d</sup> g N

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$$L_i = \sum_{j=B}^K y_j^i \cdot k y_j^i + \lambda \Delta \theta \Delta^0 \quad \%B" o$$
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 λ Δθ Δ^0 g • FM! %

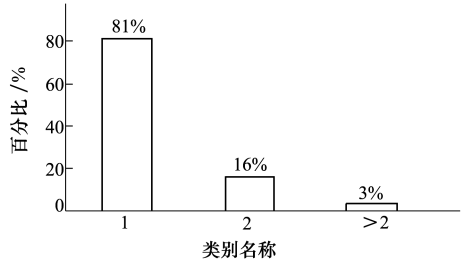
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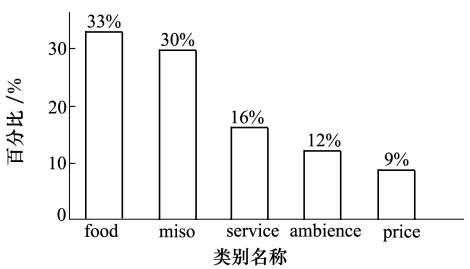
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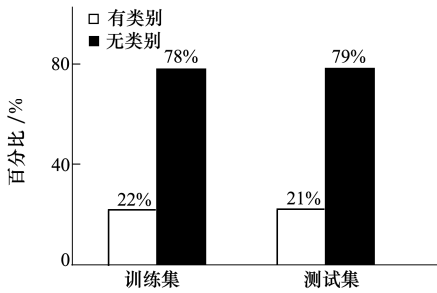
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 » 1" X +± W < T " - ; K c â +± • i W U 4 ; DÀ' +± 3  
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+ xæ%g • › Kó1" X 3 0 ò à

ï 50 i ] 6ùU@r\$ æ" "Y´ -\*UF<sub>B</sub> i %og @ñ  
Q0Ä" ±±4 ó %

$$F_B = \frac{0\%P \ 1\%R}{P + R} \quad \%B \ 0$$

ææ£ Z • -> (´ %B o1 (´ %B oÇ v - 8

$$P = \frac{|S \ 2 \ G|}{S} \quad "R = \frac{|S \ 2 \ G|}{G} \quad \%B \ 0$$

ææS \ 0Ä" & »"xA KóZ m6 } 4 ' ±±1" X 4  
0«"G \ "xA KóZ m6 } ±±• -> 1" X 40«%

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Y´ ý´ ±±æ" ; 8 x.ú æ" E=y! D°%

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½ž(Ý 2( QÇ1" X %E \ »@#&ÄŽ" X Q  
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iÆXâ´ ([ Öý´ ±±´ » ¶Kk¶ ±± iÆX æ  
" "g ü W1" X ±EM- WiÆX 31" • %

XU4K6¿w¶fá´ ([ @K Öý´ ±±´ » > ü 1  
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¶¶á´ ([ Öý´ ±±´ » x (Ü. < 3ü4~4  
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öK-Âi XâY´ ý´ ±±æ" " - + ß m.g "U"  
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ÈÖ"14 É - = 0 m.g %û = 0 Z ,8´ "Y  
´ ý´ ±±æ" U 0VM³ ±±• › Kó7F\* Ä : JF±±  
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žß. ",%g • › Kóý t ³ ßžß. %ÈÖ"14 É = • ; "  
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,%g 1 ç wü¶¶w › Kó±±31"4 É / T"  
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=• ú† -âç9é-9¶Y • › Kó é Ü, ! Ró9 ;  
xR9 ±±31" ÞÓi

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@ú FÜ@ßÖA ÆW> % - + m.g "@ßÖKóZ "1" X  
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