Dhruvi Mehta

20231800 3

Training Cat

	Documents
−	Just plain boring
−	entirely predicatable and lacks energy
+	no surprises and very few laughs
+	very powerful.
Test ?	the most fun film of the summer
•	predicatable with no fun

$P(-) = \dfrac{3}{5}$　$P(+) = \dfrac{2}{5}$

$P(\text{predicatable} \mid -) = \dfrac{1+1}{14+20} = \dfrac{2}{34} = \dfrac{1}{17}$

$P(\text{with} \mid -) = \dfrac{0+1}{14+20} = \dfrac{1}{34}$

$P(no \mid -) = \dfrac{2}{14+20} = \dfrac{3}{17}$

$P(\text{fun} \mid -) = \dfrac{0+1}{14+20} = \dfrac{1}{34}$

$P(\text{predectiable} \mid +) = \dfrac{0+1}{8+24} = \dfrac{1}{28}$

$P(\text{with} \mid +) = \dfrac{0+1}{8+20} = \dfrac{1}{28}$

$P(no \mid +) = \dfrac{0+1}{8+20} = \dfrac{1}{28}$

$P(\text{fun} \mid +) = \dfrac{1+1}{8+20} = \dfrac{2}{28}$

$$P(-|test) = \left(\frac{2}{33}\right)\left(\frac{1}{33}\right)\left(\frac{2}{33}\right)\left(\frac{1}{33}\right)\left(\frac{3}{5}\right) = \frac{12}{5929605}$$

$$P(+|test) = \left(\frac{2}{5}\right)\left(\frac{1}{28}\right)\left(\frac{1}{28}\right)\left(\frac{1}{28}\right)\left(\frac{1}{28}\right) = \frac{4}{3073280}$$

Here $P(-|test) > P(+|test)$

So the belong to negative class