

ISOM3360 Assignment: Nave Bayes

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1 Answer

Someone with poor GPA and lots of effort should not be hired with decision threshold 0.5.

2 Procedures

$$\begin{aligned} & \Pr(Hirable = Yes | GPA = poor, Effort = lots) \\ = & \frac{\Pr(GPA = poor, Effort = lots | Hirable = Yes) * \Pr(Hirable = Yes)}{\Pr(GPA = poor, Effort = lots)} \\ & = \frac{\frac{1}{3} * \frac{1}{8}}{\frac{1}{8}} \\ & = \frac{1}{3} = 0.333 \end{aligned}$$

As $0.333 < threshold = 0.5$, Someone with poor GPA and lots of effort should not be hired.