图片包含 QR 代码

描述已自动生成

Northeastern University, Khoury College of Computer Science

CS 6220 Data Mining | Assignment 5

Due: Some Date in 2024 (100 points)

Wenbo Qian

https://github.com/wenboqian/CS-6220/tree/main/A5

Naive Bayes, Bayes Rules

According to formula P (A | B) = P (B | A) \* P(A) / P(B)

P(Parkinsons ∣ Positive Detection) = P(Positive Detection | Parkinsons) \* P(Parkinsons) / P(Positive Detection)

P(Positive Detection) = P(Positive Detection ∣ Parkinsons) \* P(Parkinsons) + P(Positive Detection ∣ No Parkinsons) \* P(No Parkinsons)

So P(Parkinsons ∣ Positive Detection) = 0.09 / (0.9 \* 0.1) + (0.1 \* 0.9) = 0.5

The Sum of Conditional Probabilities

P(Ai | B) = P(B | Ai) \* P(Ai) / P(B)

Because P(B) =

So =1