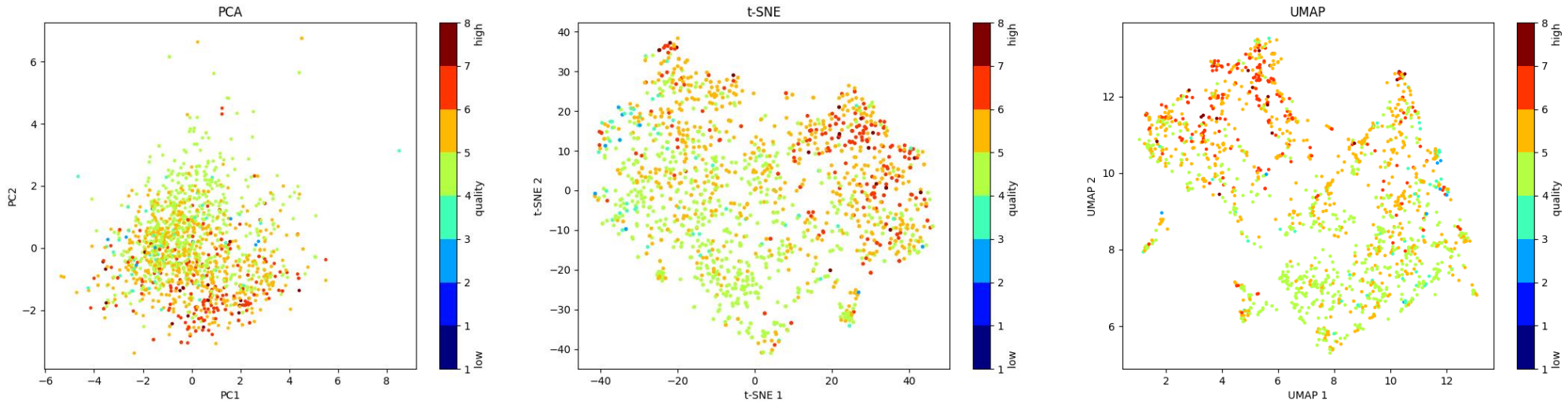


Homework 5 – Wine Quality



H0: The pH-value of the wine does not affect wine quality.

H1: The pH-value of the wine does affect the wine quality.

High quality: $\text{quality} > \text{median of quality}$

Low quality: $\text{quality} \leq \text{median of quality}$

Why? A **t-test** was used to check the hypothesis because I wanted to examine the influence of the pH-value on high and low wine quality. It was possible to use the t-test because a QQ-plot showed that the distribution of the pH-values in both groups (high and low wine quality) are normally distributed. Also, by definition, the groups are independent.

p-Value: 0.02198034398691512

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Conclusion: Since the p-value is less than 0.05, we reject the null-hypothesis H0 and conclude that H1 is true and the pH-value in fact does affect wine quality.