Report\_task1. s1817972

Task1.2

图片包含 游戏机, 画

描述已自动生成

This is the graph of the correlation matrix R. According to this graph, we found that the value of correlation of dataset X is symmetric. The closer to color red, the correlation coefficient is close to 1, which mean positive correlation. On the contrary, the closer to blue, the correlation coefficient is close to -1, which mean negative correlation.

Task1.3

This is the graph of cumulative variance.

地图的截图

描述已自动生成

This is the graph of all data on 2D-PCA plane.

地图的截图

描述已自动生成

Task1.4

Covkind1

图片包含 游戏机

描述已自动生成

This is final confusion matrix of full covariance matrix.

Accuracy = sum(diag(CM)) = 0.9071.

Covkind2

手机屏幕截图

描述已自动生成

This is final confusion matrix of diagonal covariance matrix.

Accuracy = sum(diag (CM)) = 0.8432.

Covkind3

图片包含 游戏机

描述已自动生成

This is final confusion matrix of shared covariance matrix. The accuracy is 0.8883.

Accuracy = sum(diag (CM)) = 0.8883.

Task1.5

地图的截图

描述已自动生成

This is the graph between epsilon value in x-axis and accuracy in y-axis. According to the graph, we found that the accuracy will straightly decrease when the number of epsilon value increase and accuracy decrease in a high rate between 0 – 0.-1 of epsilon value.