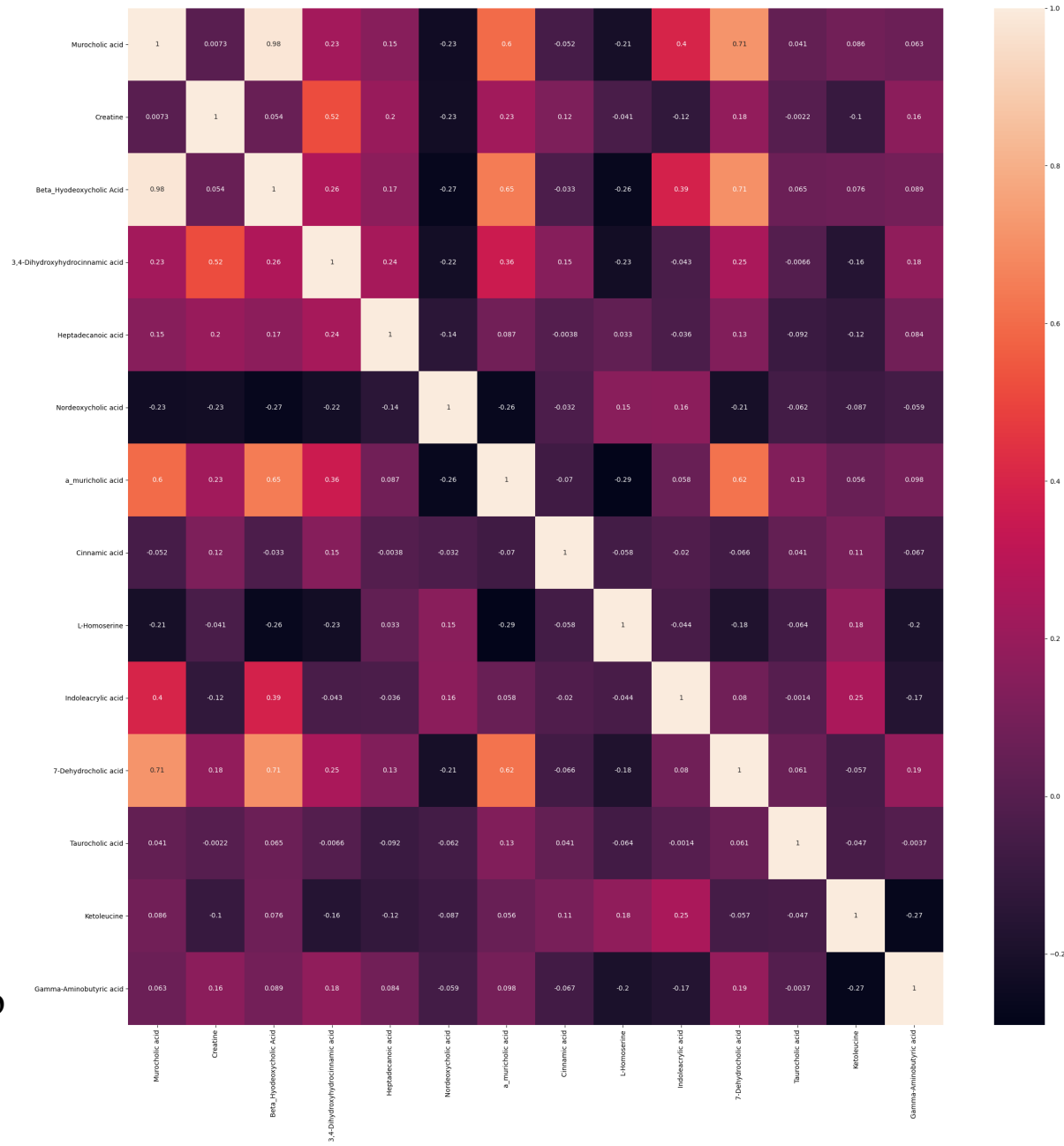所有样本中患病与不患病的情况

heatmap

特征提取1

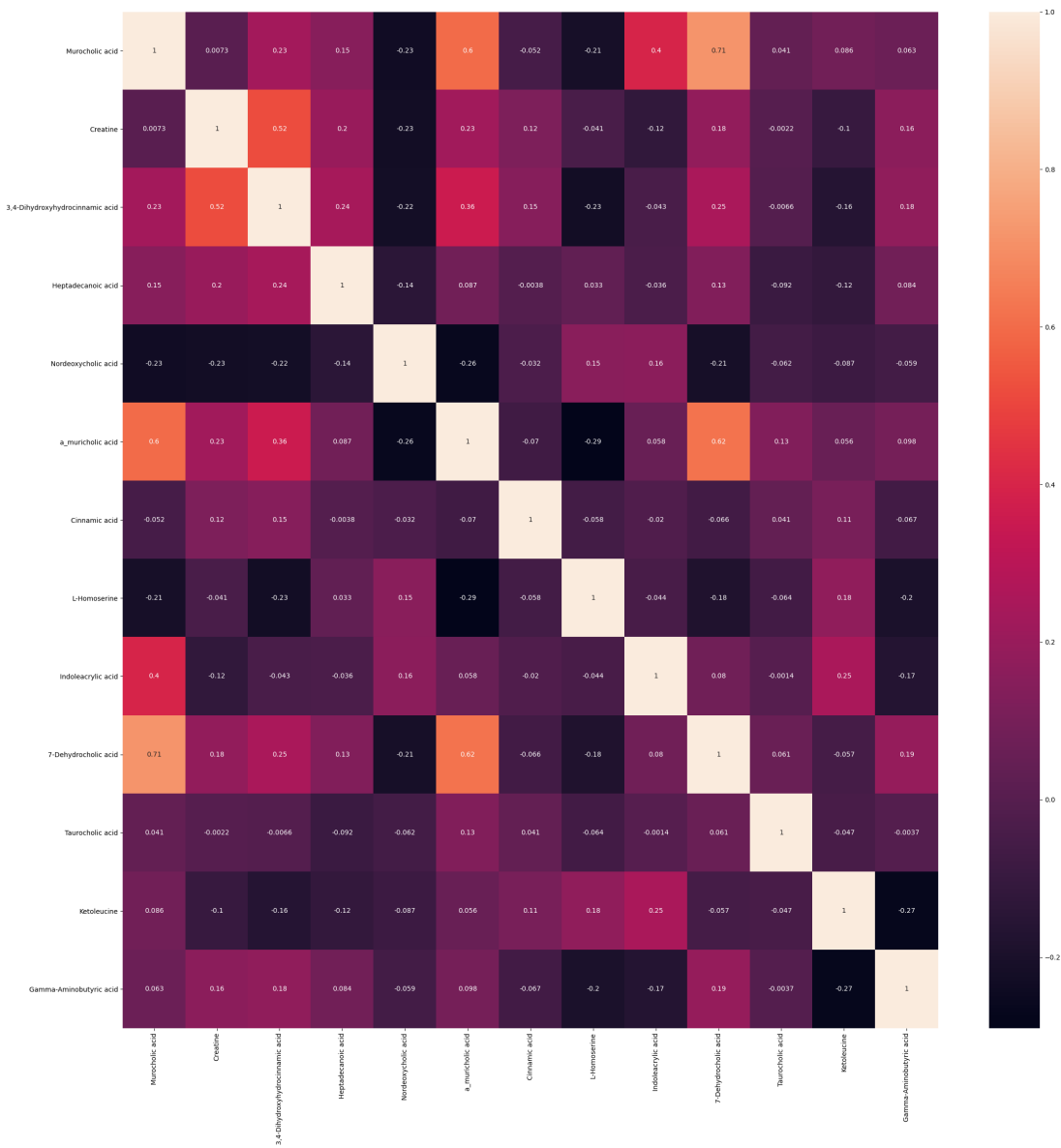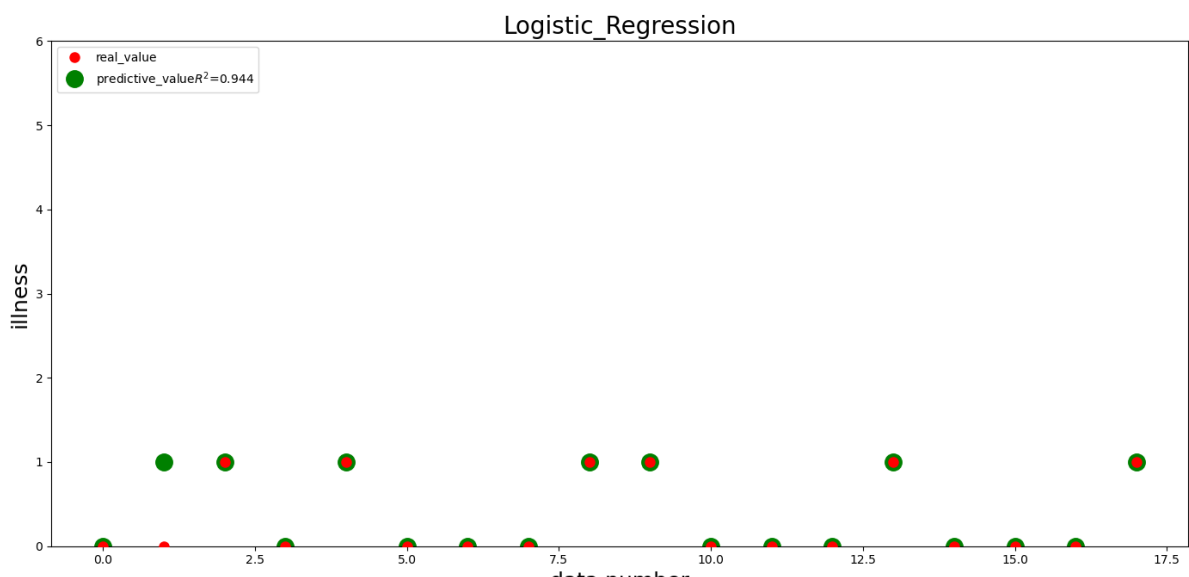热力图中可以看到特征"Muorcholic acid"与特征" Beta_Hyodeoxycholic Acid"相关性较高，使用一个代表即可

显著特征：
'Murocholic acid', 'Creatine', '3,4-Dihydroxyhydrocinnamic acid', 'Heptadecanoic acid', 'Nordeoxycholic acid', 'a_muricholic acid', 'Cinnamic acid', 'L-Homoserine', 'Indoleacrylic acid', '7-Dehydrocholic acid', 'Taurocholic acid', 'Ketoleucine', 'Gamma-Aminobutyric acid'
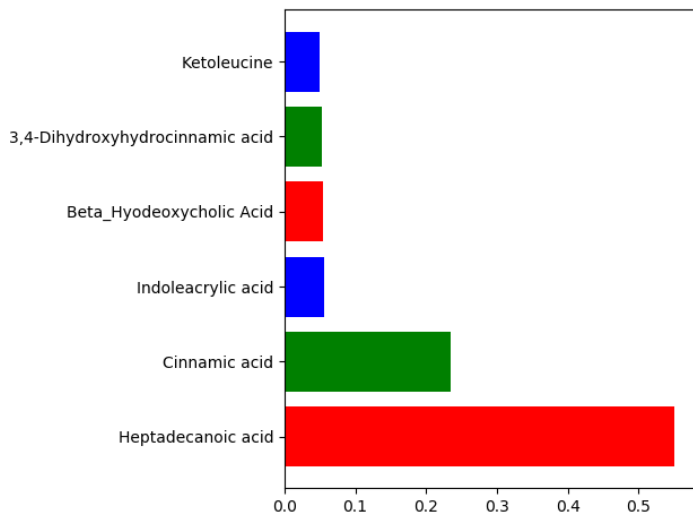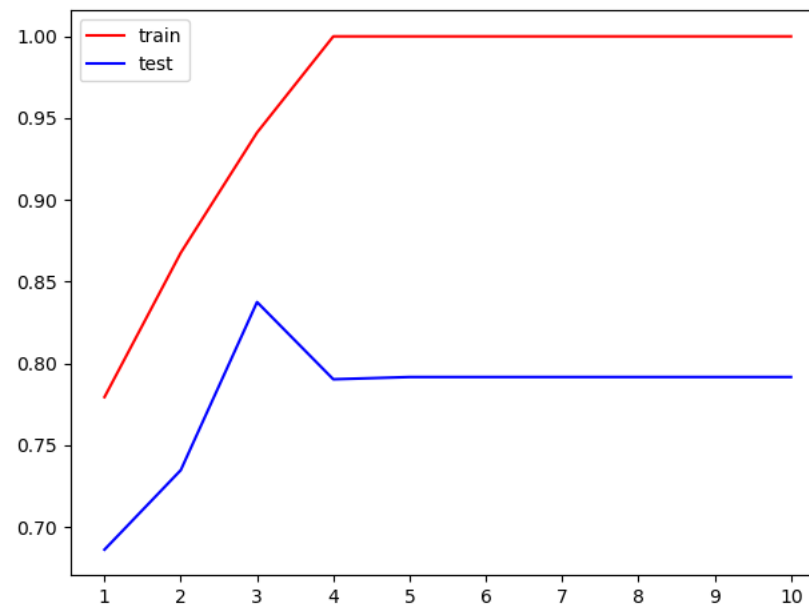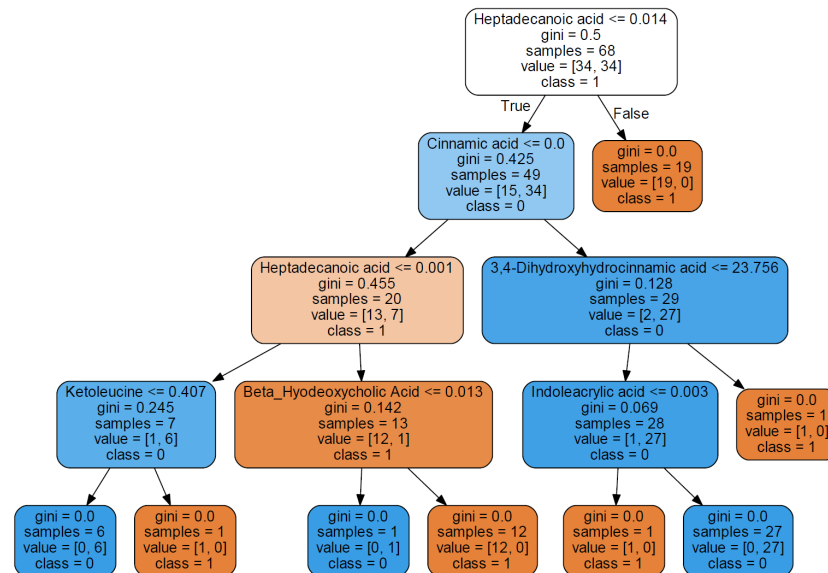
准确率：
SVM： 84.6%
Logistic回归：97.05%

特征提取2

显著特征：

准确率：
决策树：88.89%
SVM：88.89%
Logistic 回归：88.24%

特征提取3

显著特征（20分以上）：
'Heptadecanoic acid',
'Cinnamic acid',
'Ketoleucine',
'Indoleacrylic acid',
'L-Homoserine',
'Murocholic acid'

准确率：
XGBoost：92.31%
SVM：94.44%
Logistic 回归：86.76%

Feature importance