

## Feature Descriptor: Haralick

### 1. Feature Selection: CFS

Algorithm	AUC	AC	SN	SP	PR	FM	TIME
J48	0.672	0.603	0.603	0.605	0.605	0.603	0
J48 binary tree	0.716	0.718	0.718	0.725	0.732	0.715	0
AODE	0.716	0.672	0.672	0.68	0.684	0.669	0
Bayes network	0.695	0.641	0.641	0.654	0.666	0.632	0
Naïve bay	0.689	0.649	0.649	0.663	0.682	0.637	0
SVM	0.546	0.557	0.557	0.535	0.569	0.515	0
Logistic	0.676	0.634	0.634	0.635	0.635	0.634	0
SMO	0.667	0.664	0.664	0.669	0.67	0.663	0
Muti layer	0.753	0.679	0.679	0.676	0.679	0.679	1.28

### 2. Feature Selection: Chi-Square

K=14

Algorithm	AUC	AC	SN	SP	PR	FM	TIME
J48	0.611	0.595	0.595	0.604	0.606	0.591	0
J48 binary tree	0.611	0.588	0.588	0.595	0.595	0.585	0
AODE	0.582	0.58	0.58	0.583	0.583	0.58	0
Bayes network	0.621	0.649	0.649	0.656	0.659	0.646	0
Naïve bay	0.607	0.618	0.618	0.628	0.632	0.613	0
SVM	0.471	0.489	0.489	0.453	0.262	0.341	0
Logistic	0.659	0.634	0.636	0.636	0.636	0.634	0
SMO	0.565	0.565	0.565	0.565	0.565	0.565	0.05
Muti layer	0.652	0.603	0.603	0.607	0.606	0.602	8.88

### 3. Feature Selection: Gain Ratio

K=14

Algorithm	AUC	AC	SN	SP	PR	FM	TIME
J48	0.611	0.595	0.595	0.604	0.606	0.591	0
J48 binary tree	0.612	0.595	0.595	0.603	0.604	0.592	0
AODE	0.582	0.58	0.58	0.583	0.583	0.58	0
Bayes network	0.621	0.649	0.649	0.656	0.659	0.646	0
Naïve bay	0.607	0.618	0.618	0.628	0.632	0.613	0
SVM	0.471	0.489	0.489	0.453	0.262	0.341	0

Logistic	0.659	0.634	0.636	0.636	0.636	0.633	0
SMO	0.558	0.557	0.557	0.558	0.558	0.557	0.05
Muti layer	0.632	0.58	0.58	0.58	0.58	0.58	8.81

#### 4. Feature Selection: Information Gain

K=14

Algorithm	AUC	AC	SN	SP	PR	FM	TIME
J48	0.611	0.595	0.595	0.604	0.606	0.591	0
J48 binary tree	0.612	0.595	0.595	0.603	0.604	0.592	0
AODE	0.582	0.58	0.58	0.583	0.583	0.58	0
Bayes network	0.621	0.649	0.649	0.656	0.659	0.646	0
Naïve bay	0.607	0.618	0.618	0.628	0.632	0.613	0
SVM	0.471	0.489	0.489	0.453	0.262	0.341	0
Logistic	0.659	0.634	0.634	0.636	0.636	0.633	0
SMO	0.565	0.565	0.565	0.565	0.565	0.565	0.05
Muti layer	0.644	0.618	0.618	0.617	0.618	0.618	8.73

#### 5. Feature Selection: Relief

K=14

Algorithm	AUC	AC	SN	SP	PR	FM	TIME
J48	0.602	0.588	0.588	0.596	0.597	0.584	0
J48 binary tree	0.585	0.565	0.565	0.57	0.57	0.563	0
AODE	0.582	0.58	0.58	0.583	0.583	0.58	0
Bayes network	0.621	0.649	0.649	0.656	0.659	0.646	0
Naïve bay	0.607	0.618	0.618	0.628	0.632	0.613	0
SVM	0.471	0.489	0.489	0.453	0.262	0.341	0
Logistic	0.659	0.634	0.636	0.636	0.636	0.633	0
SMO	0.565	0.565	0.565	0.565	0.565	0.565	0.05
Muti layer	0.651	0.611	0.611	0.611	0.611	0.611	8.7