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# **Progress and Question**

#### 1. Scalar for features

without scalar

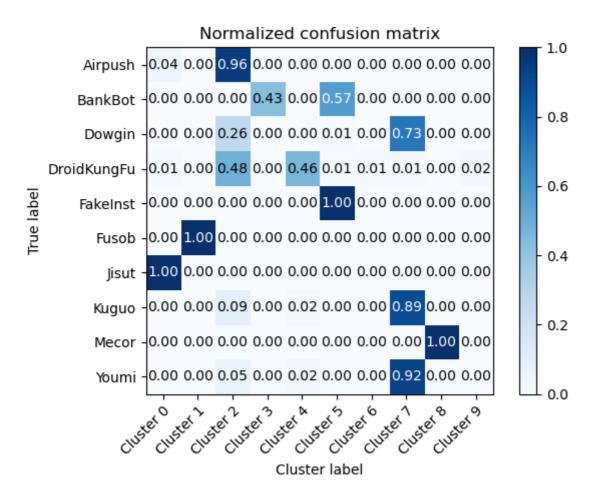
### Clustering

before sampling [(0, 6652), (1, 647), (2, 862), (3, 546), (4, 2168), (5, 1262), (6, 558), (7, 1197), (8, 1820), (9, 1300)] after sampling [(0, 546), (1, 546), (2, 546), (3, 546), (4, 546), (5, 546), (6, 546), (7, 546), (8, 546), (9, 546)]

**Similarity** --Result of cluster 0 the largest is Jisut with 0.9479166666666666666666666--Result of cluster 1 the largest is Fusob with 1.0 --Result of cluster 2 the largest is Airpush with 0.5082765335929893 --Result of cluster 3 the largest is BankBot with 0.4267399267399267 --Result of cluster 4 the largest is DroidKungFu with 0.4426807760141093 --Result of cluster 5 the largest is FakeInst with 0.6275862068965518 --Result of cluster 6 the largest is DroidKungFu with 0.014571948998178506 --Result of cluster 7 the largest is Youmi with 0.3514644351464435 --Result of cluster 8 the largest is Mecor with 1.0 --Result of cluster 9 the largest is DroidKungFu with 0.020146520146520148

not distiguished {'Kuguo', 'Dowgin'}

#### Mojofm score 85.39



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#### without scaler

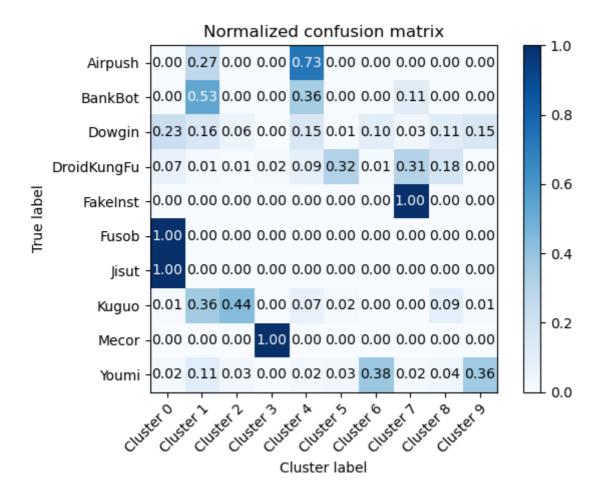
before sampling [(0, 6652), (1, 647), (2, 862), (3, 546), (4, 2168), (5, 1262), (6, 558), (7, 1197), (8, 1820), (9, 1300)] after sampling [(0, 546), (1, 546), (2, 546), (3, 546), (4, 546), (5, 546), (6, 546), (7, 546), (8, 546), (9, 546)]

#### **Similarity**

--Result of cluster 0 the largest is Fusob with 0.4319620253164557 --Result of cluster 1 the largest is BankBot with 0.28103946102021177 --Result of cluster 2 the largest is Kuguo with 0.39932885906040266 --Result of cluster 3 the largest is Mecor with 0.978494623655914 --Result of cluster 4 the largest is Airpush with 0.4322860238353196 --Result of cluster 5 the largest is DroidKungFu with 0.2986111111111111 -- Result of cluster 6 the largest is Youmi with 0.33934426229508197 --Result of cluster 7 the largest is FakeInst with 0.6825 --Result of cluster 8 the largest is DroidKungFu with 0.14349112426035504 --Result of cluster 9 the largest is Youmi with 0.3128930817610063

not distiguished {'Jisut', 'Dowgin'}

#### Mojofm score 66.07

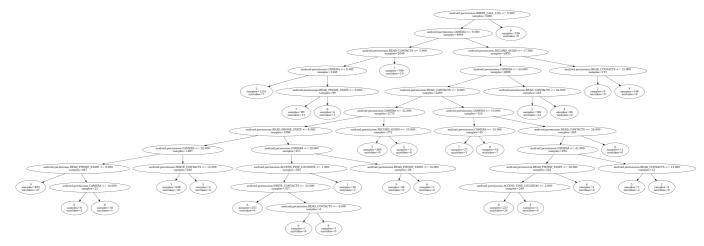


Question:不知道选择 scalar 还是不选择呢?

## 2. Tree explanation of Exkmc algorithm

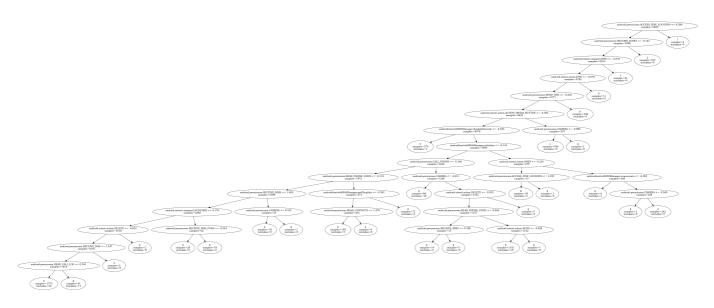
without scalar

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more repeated features?

with scalar



Question: 还是不太会总结这个相关特征

## 3.Cltree(baseline):

#### result example

read 36 instances from data/gen.arff attribute names: [('id', <class 'float'>), ('class', <class 'float'>), ('x0', <class 'float'>), ('x1', <class 'float'>)] class names: ['c0', 'c1']

Cluster 0 Node: 16 instances, 0 misclassified, 100% c0, 100 relative density Cuts {'x1', 'x0'} x0 max: 0.690888 min: -0.586729 x1 max: 1.940884 min: -0.08176

Cluster 1 Node: 18 instances, 0 misclassified, 100% c1, 100 relative density Cuts {'x1', 'x0'} x0 max: 2.125444 min: 1.847681 x1 max: 2.038049 min: 1.658716

Total instances clustered: 34

可以得到相关特征 但是跑实验的过程需要很久 我放到服务器上跑 暂时还没有出结果

## 4. 论文写了 10 页 hhhhhhh