ML : p4k10

머신러닝 목표

- 하루의 동역학(40개의 특성)이 무엇을 예측할 수 있는가?
  - 'C1O1', 'C2O1', 'O2C1', 'C2C1', 'C2O2'
- 문제점
  - 40개의 특성 중 값이 0이 존재
  - 0 -> 결정안된 동역학
  - 0을 어떻게 처리해서 모델을 만들어야하는 지?

kia01	C101	C201	02C1	C2C1	C202
model-ACC	nb	qda	nb	ada	ridge
acc	0.5361	0.5426	0.5637	0.5367	0.5315
model-AUC	nb	qda	nb	lda	lightgbm
auc	0.5264	0.5213	0.5855	0.5367	0.5268

kia02	C101	C201	02C1	C2C1	C202
model-ACC	lr	gbc	lda	lr	gbc
acc	0.5505	0.5393	0.573	0.5387	0.5565
model-AUC	nb	lightgbm	lda	lr	gbc
auc	0.5257	0.5372	0.5836	0.5387	0.5284

```
1   ml_summary
```

tkco	C101	C201	02C1	C2C1	C202
model-ACC	et	lr	ada	ada	knn
acc	0.6385	0.6041	0.6147	0.5485	0.5361
model-AUC	nb	lr	gbc	ada	gbc
auc	0.6777	0.6278	0.5568	0.5474	0.542

hynix	C101	C201	02C1	C2C1	C202
model-ACC	lr	dt	lr	knn	lr
acc	0.5591	0.5267	0.5473	0.5143	0.5433
model-AUC	nb	dt	qda	knn	qda
auc	0.534	0.5263	0.5039	0.5097	0.5049

ML : action-k(1~10)

action min or max features, k-10

- load raw data
- features: 20
- targets: 5 'C1O1', 'C2O1', 'O2C1', 'C2C1', 'C2O2'

Stock 10 Y

- period
  - 2009-03-23 ~ 2018-05-30
- features
  - ['k', 'fitN', 'a0', 'a1', 'b0', 'tau'] : p4k10
  - ['k', 'amax', 'pmax'] : aMax
  - ['k', 'amin', 'pmin'] : aMin

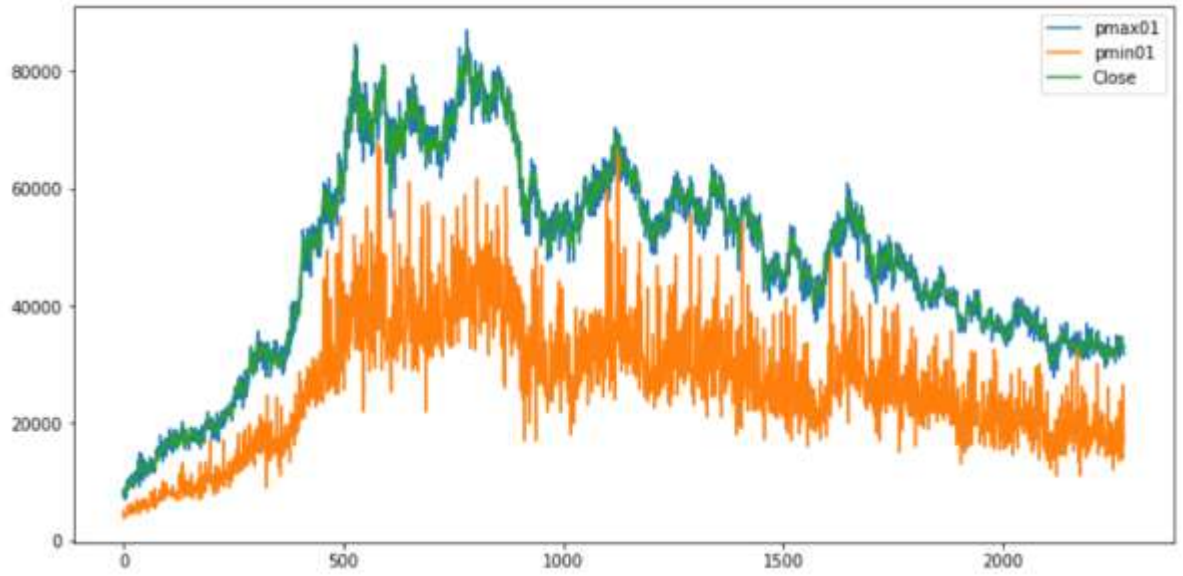
Cases of amax=0

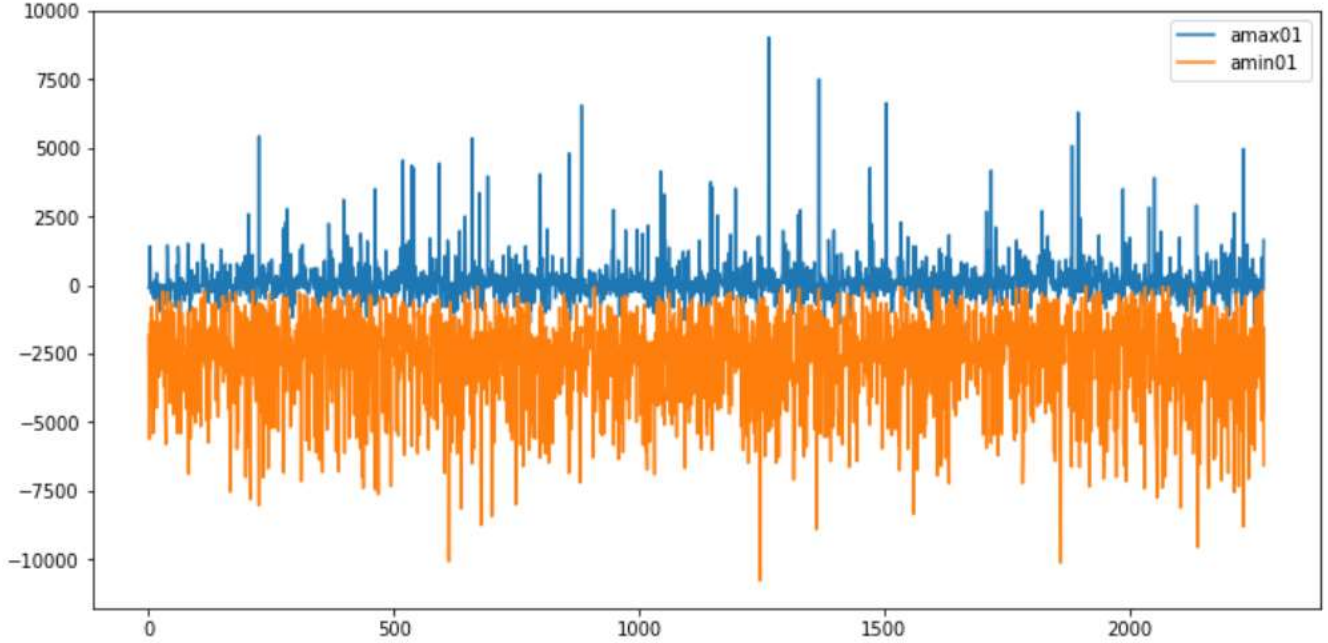
- kia : 4
- hynix : 4
- tkco : 8

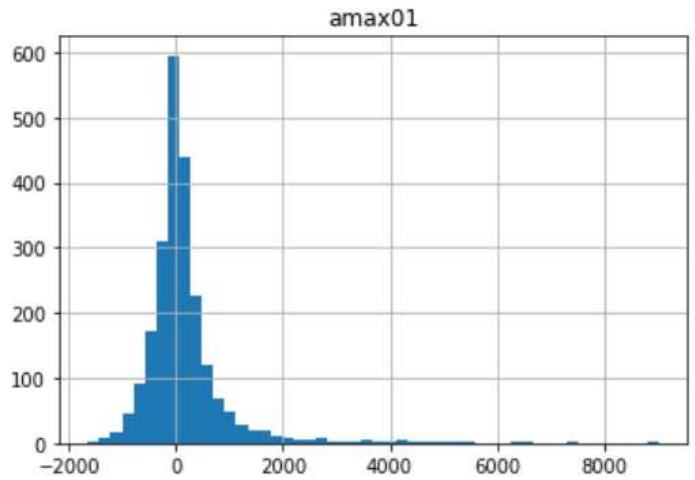
Cases of amin=0

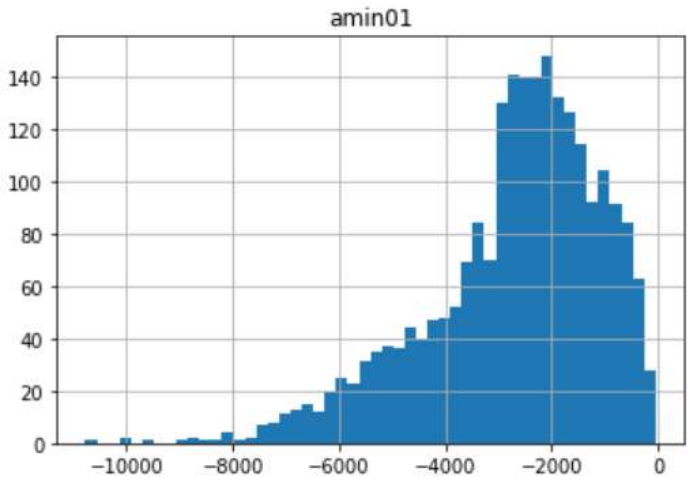
- kia : 0
- hynix : 0
- tkco : 0

Kia-action-max-min, k=1

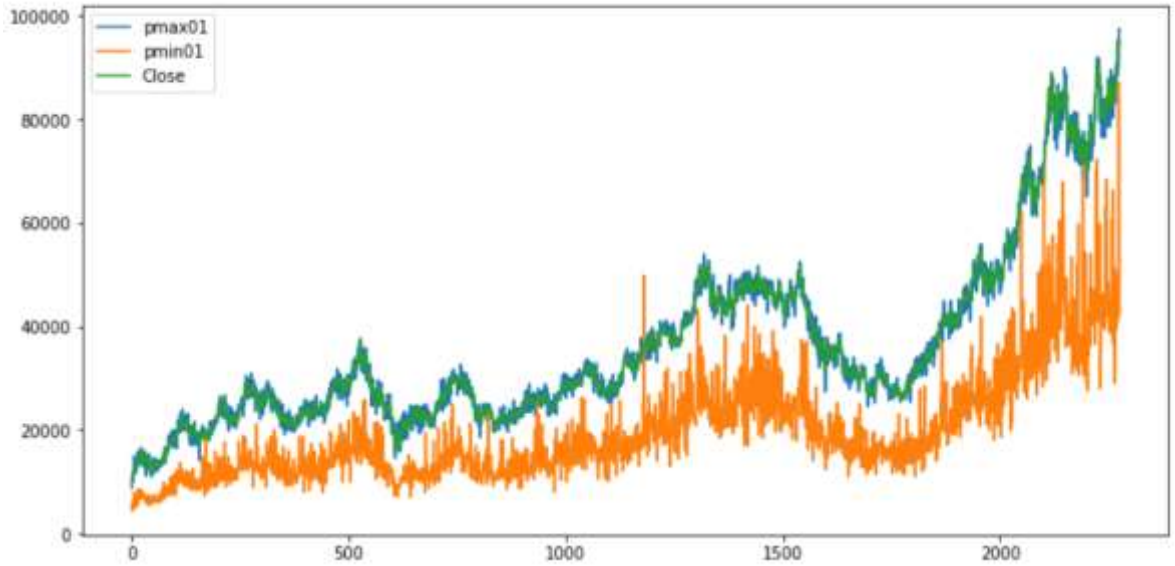


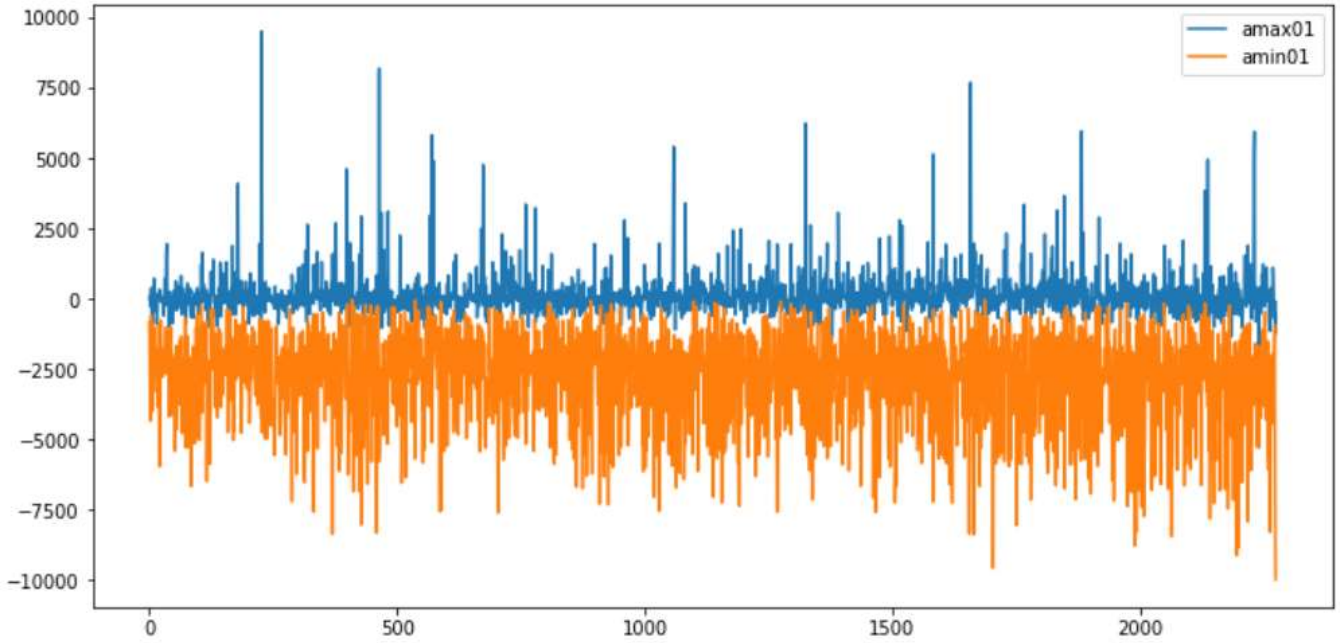


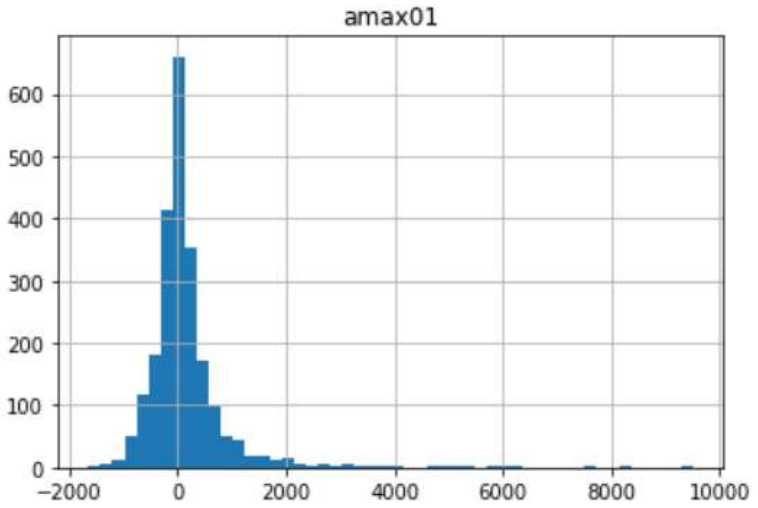


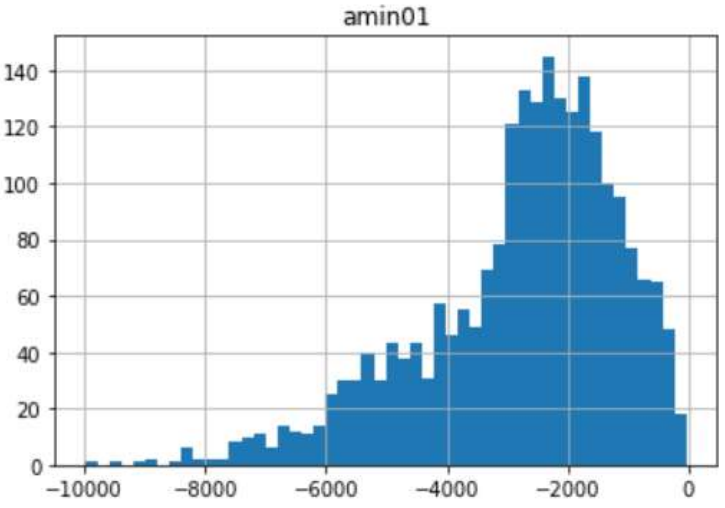


Hynix-action-max-min, k=1

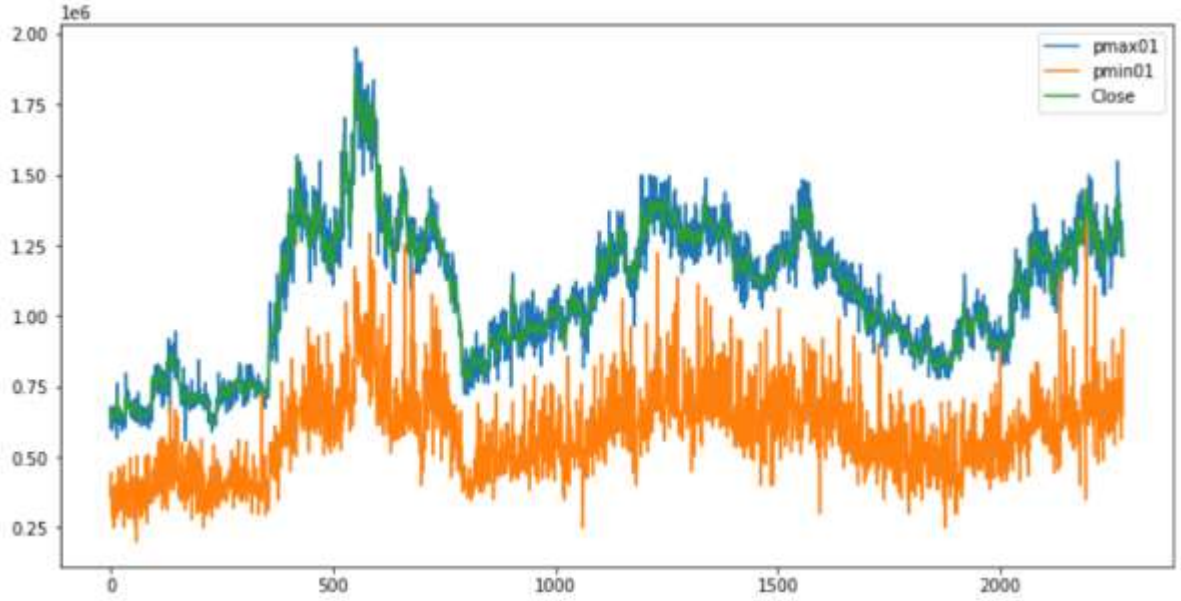


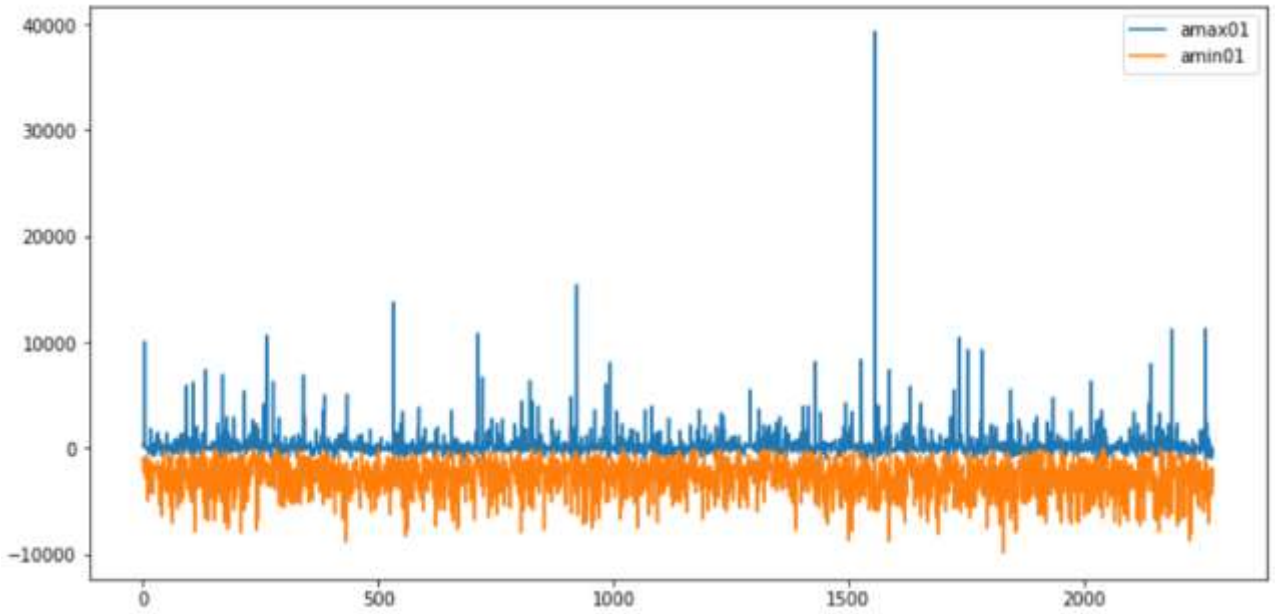


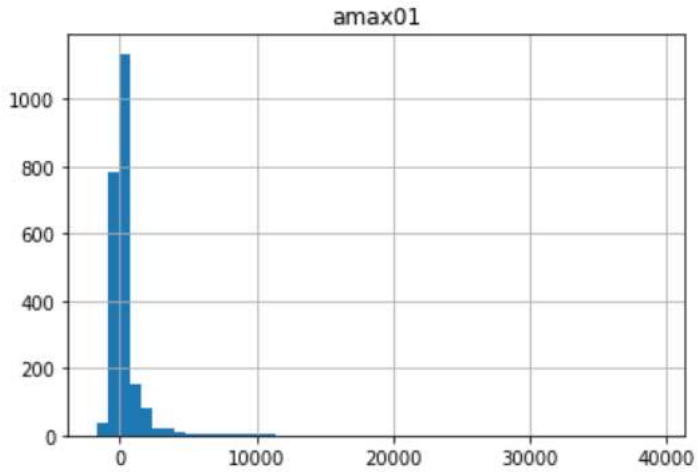


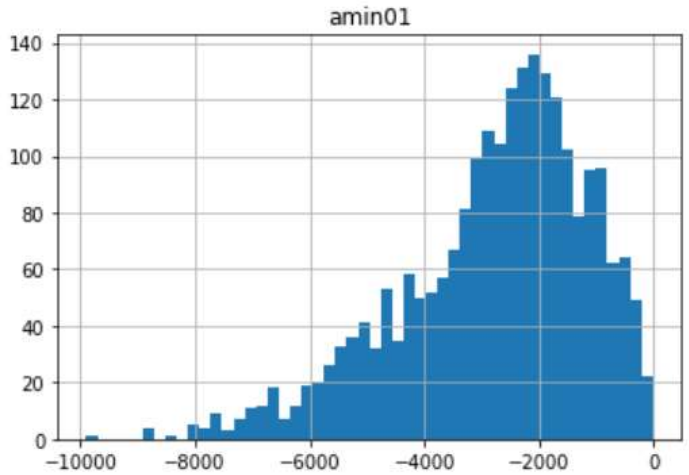


TKco-action-max-min, k=1









Kia-act-max

	C101	C201	02C1	C2C1	C202
model-ACC	gbc	gbc	nb	lr	lda
acc	0.5631	0.5479	0.534	0.5473	0.5433
model-AUC	gbc	gbc	nb	ada	gbc
auc	0.5804	0.5555	0.5436	0.5503	0.5356

Kia-act-min

	C101	C201	02C1	C2C1	C202
model-ACC	rf	rf	nb	knn	knn
acc	0.6655	0.6173	0.5697	0.5406	0.5467
model-AUC	rf	rf	nb	et	knn
auc	0.7311	0.6513	0.5825	0.5547	0.55

Kia-act-max-min

	C101	C201	02C1	C2C1	C202
model-ACC	rf	rf	nb	nb	gbc
acc	0.7065	0.6226	0.5624	0.5314	0.5631
model-AUC	lgbm	rf	nb	nb	lgbm
auc	0.7806	0.6802	0.5851	0.54	0.5548

Hynix-act-max

	C101	C201	02C1	C2C1	C202
model-ACC	gbc	et	lr	gbc	lr
acc	0.5652	0.5472	0.5664	0.53	0.5532
model-AUC	qda	qda	gbc	lr	nb
auc	0.5526	0.5571	0.5366	0.5263	0.5013

Hynix-act-min

	C101	C201	02C1	C2C1	C202
model-ACC	et	lr	lr	ada	lr
acc	0.6893	0.6029	0.5585	0.538	0.544
model-AUC	et	rf	nb	gbc	lgbm
auc	0.7489	0.6294	0.546	0.5415	0.502

Hynix-act-max-min

	C101	C201	02C1	C2C1	C202
model-ACC	rf	qda	lr	knn	ada
acc	0.7231	0.6167	0.5684	0.5221	0.538
model-AUC	rf	rf	nb	gbc	ada
auc	0.793	0.6531	0.5516	0.5214	0.5067

TKco-act-max

	C101	C201	02C1	C2C1	C202
model-ACC	et	gbc	lda	nb	et
acc	0.5394	0.5413	0.6299	0.5143	0.5261
model-AUC	rf	et	nb	lr	et
auc	0.5491	0.5625	0.529	0.5252	0.5346

TKco-act-min

	C101	C201	02C1	C2C1	C202
model-ACC	rf	rf	lr	gbc	knn
acc	0.6239	0.6121	0.6213	0.5307	0.5195
model-AUC	rf	rf	et	rf	et
auc	0.661	0.6387	0.5488	0.5276	0.5282

TKco-act-max-min

	C101	C201	02C1	C2C1	C202
model-ACC	rf	rf	et	et	dt
acc	0.6518	0.6226	0.6252	0.5472	0.5314
model-AUC	rf	et	nb	et	et
auc	0.7024	0.6712	0.5361	0.5486	0.5406