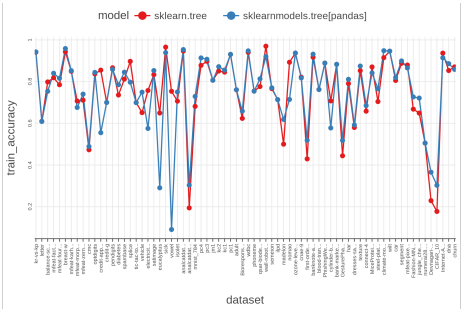
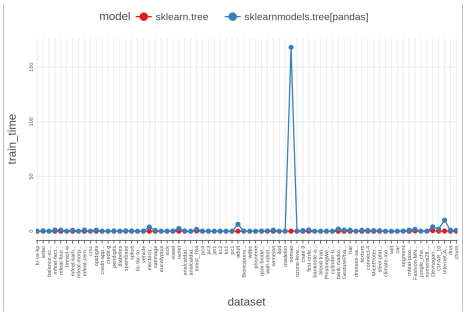
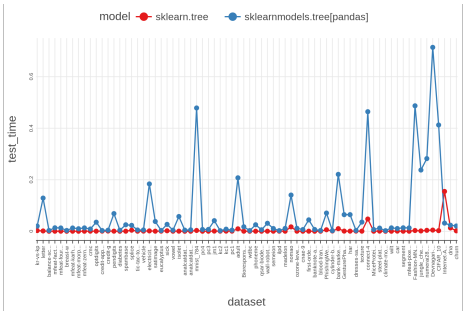
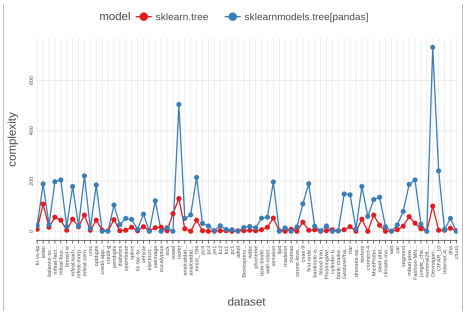
Graphs

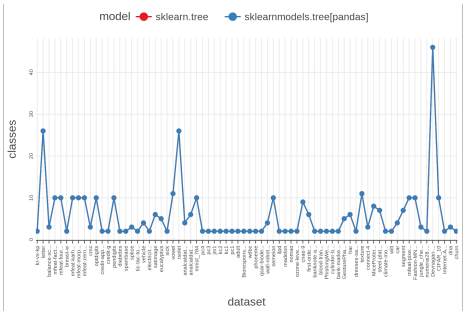


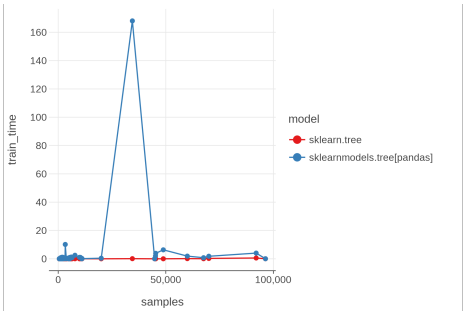
All times are specified in seconds

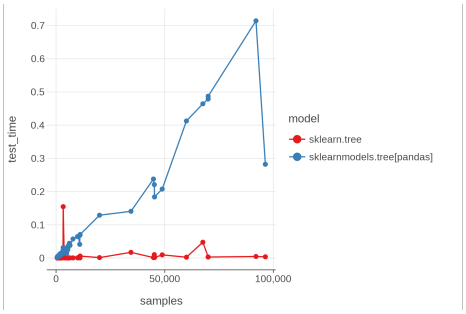


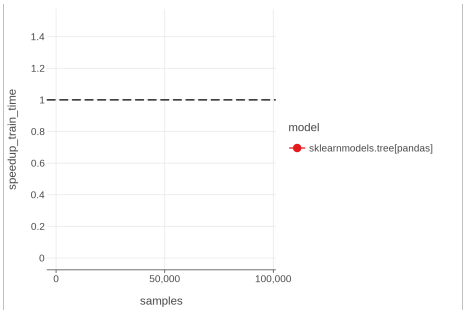


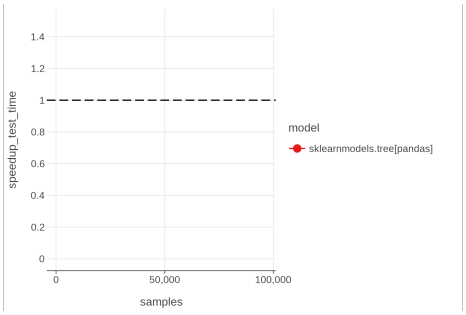


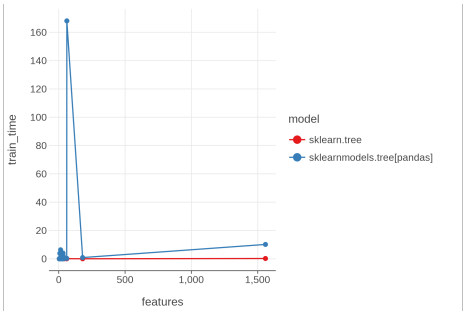

model
sklearn.tree
sklearnmodels.tree[pandas]
classes
dataset

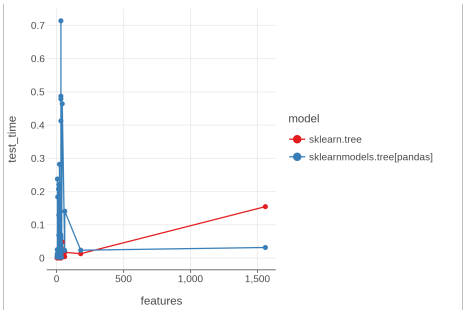

train_time
samples
model
sklearn.tree
sklearnmodels.tree[pandas]

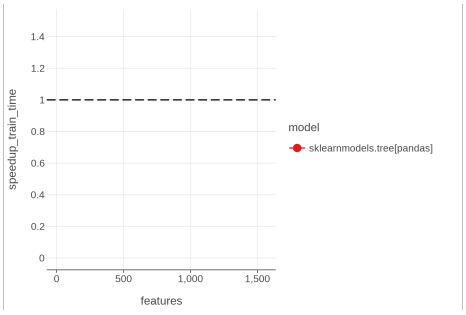

test_time
samples
model
sklearn.tree
sklearnmodels.tree[pandas]

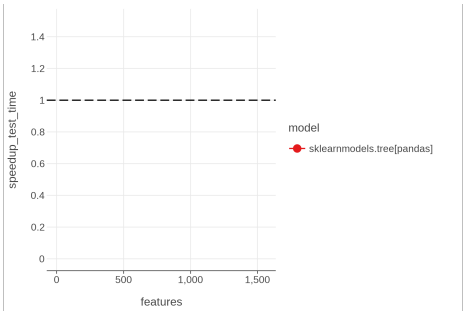

speedup_train_time
samples
model
sklearnmodels.tree[pandas]


speedup_test_time
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
50,000
100,000
samples
model
sklearnmodels.tree[pandas]


train_time
160
140
120
100
80
60
40
20
0
0
500
1,000
1,500
features
model
sklearn.tree
sklearnmodels.tree[pandas]


test_time
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1,000
1,500
features
model
sklearn.tree
sklearnmodels.tree[pandas]


speedup_train_time
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
500
1,000
1,500
features
model
sklearnmodels.tree[pandas]



Benchmark table

model	dataset	train_accuracy	train_time
sklearn.tree	kr-vs-kp	0.940864	0.00422162
sklearn.tree	letter	0.60975	0.00833378
sklearn.tree	balance-scale	0.7984	0.000538338
sklearn.tree	mfeat-factors	0.8185	0.0100625
sklearn.tree	mfeat-fourier	0.785	0.00720972
sklearn.tree	breast-w	0.942775	0.000536605
sklearn.tree	mfeat-karhunen	0.8495	0.00802147
sklearn.tree	mfeat-morphological	0.707	0.000896991
sklearn.tree	mfeat-zernike	0.711	0.00851101
sklearn.tree	cmc	0.473184	0.00096813
sklearn.tree	optdigits	0.837011	0.0191249
sklearn.tree	credit-approval	0.855072	0.00129089
sklearn.tree	credit-g	0.7	0.00184981
sklearn.tree	pendigits	0.866357	0.00600115
sklearn.tree	diabetes	0.735677	0.000580383
sklearn.tree	spambase	0.81178	0.00844677
sklearn.tree	splice	0.897179	0.00810691
sklearn.tree	tic-tac-toe	0.699374	0.000860518
sklearn.tree	vehicle	0.6513	0.00173224
sklearn.tree	electricity	0.757393	0.00892267
sklearn.tree	satimage	0.833593	0.0169762
sklearn.tree	eucalyptus	0.649457	0.00138045
sklearn.tree	sick	0.965536	0.00368869
sklearn.tree	vowel	0.753535	0.00157562
sklearn.tree	isolet	0.706297	0.0348499
sklearn.tree	analcatdata_authorship	0.946492	0.0018687
sklearn.tree	analcatdata_dmft	0.194479	0.000500853
sklearn.tree	mnist_784	0.681357	0.290139
sklearn.tree	pc4	0.877915	0.00206743
sklearn.tree	pc3	0.897633	0.00191192

model	dataset	train_accuracy	train_time
sklearn.tree	jm1	0.806523	0.00482505
sklearn.tree	kc2	0.850575	0.00104357
sklearn.tree	kc1	0.845424	0.00158895
sklearn.tree	pc1	0.930568	0.00134721
sklearn.tree	adult	0.760718	0.0184856
sklearn.tree	Bioresponse	0.623567	0.00546125
sklearn.tree	wdbc	0.940246	0.00117442
sklearn.tree	phoneme	0.754626	0.00147927
sklearn.tree	qsar-biodeg	0.776303	0.00264941
sklearn.tree	wall-robot-navigation	0.969758	0.00763566
sklearn.tree	semeion	0.766478	0.00922821
sklearn.tree	ilpd	0.713551	0.000984096
sklearn.tree	madelon	0.5	0.00458262
sklearn.tree	nomao	0.892761	0.0998926
sklearn.tree	ozone-level-8hr	0.936859	0.00279788
sklearn.tree	cnae-9	0.821296	0.00692959
sklearn.tree	first-order-theorem-proving	0.429552	0.010541
sklearn.tree	banknote-authentication	0.91691	0.000784253
sklearn.tree	blood-transfusion-service-center	0.762032	0.000863353
sklearn.tree	PhishingWebsites	0.888919	0.00878431
sklearn.tree	cylinder-bands	0.707407	0.0021546
sklearn.tree	bank-marketing	0.883015	0.0174044
sklearn.tree	GesturePhaseSegmentationProcessed	0.444343	0.0191803
sklearn.tree	har	0.790659	0.0262504
sklearn.tree	dresses-sales	0.58	0.0012885
sklearn.tree	texture	0.852545	0.0210705
sklearn.tree	connect-4	0.658303	0.0637705
sklearn.tree	MiceProtein	0.87037	0.0041364
sklearn.tree	steel-plates-fault	0.704276	0.00434864
sklearn.tree	climate-model-simulation-crashes	0.914815	0.000670785
sklearn.tree	wilt	0.946063	0.00101239
sklearn.tree	car	0.805556	0.00116798
sklearn.tree	segment	0.887879	0.00217301
sklearn.tree	mfeat-pixel	0.8795	0.0112801
sklearn.tree	Fashion-MNIST	0.667943	0.281108
sklearn.tree	jungle_chess_2pcs_raw_endgame_complete	0.6491	0.00451756
sklearn.tree	numerai28.6	0.50517	0.0360487
sklearn.tree	Devnagari-Script	0.229326	0.566889
sklearn.tree	CIFAR_10	0.177533	0.122391
sklearn.tree	Internet-Advertisements	0.936566	0.207374
sklearn.tree	dna	0.853107	0.026576
sklearn.tree	churn	0.8706	0.00367226
sklearnmodels.tree[pandas]	kr-vs-kp	0.942428	0.0632813
sklearnmodels.tree[pandas]	letter	0.6089	0.423725

model	dataset	train_accuracy	train_time
sklearnmodels.tree[pandas]	balance-scale	0.7536	0.0120753
sklearnmodels.tree[pandas]	mfeat-factors	0.84	1.06278
sklearnmodels.tree[pandas]	mfeat-fourier	0.816	1.08044
sklearnmodels.tree[pandas]	breast-w	0.958512	0.0307368
sklearnmodels.tree[pandas]	mfeat-karhunen	0.8525	0.941136
sklearnmodels.tree[pandas]	mfeat-morphological	0.676	0.0129854
sklearnmodels.tree[pandas]	mfeat-zernike	0.74	1.08961
sklearnmodels.tree[pandas]	cmc	0.488798	0.016356
sklearnmodels.tree[pandas]	optdigits	0.844128	1.04794
sklearnmodels.tree[pandas]	credit-approval	0.555072	0.0323298
sklearnmodels.tree[pandas]	credit-g	0.7	0.0315975
sklearnmodels.tree[pandas]	pendigits	0.858988	0.28963
sklearnmodels.tree[pandas]	diabetes	0.785156	0.0335225
sklearnmodels.tree[pandas]	spambase	0.845251	0.36339
sklearnmodels.tree[pandas]	splice	0.797179	0.303626
sklearnmodels.tree[pandas]	tic-tac-toe	0.699374	0.0070874
sklearnmodels.tree[pandas]	vehicle	0.749409	0.19306
sklearnmodels.tree[pandas]	electricity	0.575455	3.87601
sklearnmodels.tree[pandas]	satimage	0.852877	0.759079
sklearnmodels.tree[pandas]	eucalyptus	0.290761	0.041378
sklearnmodels.tree[pandas]	sick	0.938759	0.15022
sklearnmodels.tree[pandas]	vowel	0.0909091	0.243236
sklearnmodels.tree[pandas]	isolet	0.750417	2.51117
sklearnmodels.tree[pandas]	analcatdata_authorship	0.953627	0.26323
sklearnmodels.tree[pandas]	analcatdata_dmft	0.303639	0.0149218
sklearnmodels.tree[pandas]	mnist_784	0.729029	1.80028
sklearnmodels.tree[pandas]	pc4	0.91358	0.226698
sklearnmodels.tree[pandas]	pc3	0.90723	0.142458
sklearnmodels.tree[pandas]	jm1	0.806523	0.028509
sklearnmodels.tree[pandas]	kc2	0.871648	0.0837413
sklearnmodels.tree[pandas]	kc1	0.855382	0.0368613
sklearnmodels.tree[pandas]	pc1	0.930568	0.0330304
sklearnmodels.tree[pandas]	adult	0.760718	6.34443
sklearnmodels.tree[pandas]	Bioresponse	0.658491	0.124755
sklearnmodels.tree[pandas]	wdbc	0.947276	0.089382
sklearnmodels.tree[pandas]	phoneme	0.754071	0.0131961
sklearnmodels.tree[pandas]	qsar-biodeg	0.81327	0.311188
sklearnmodels.tree[pandas]	wall-robot-navigation	0.920088	0.249595
sklearnmodels.tree[pandas]	semeion	0.770245	1.04459
sklearnmodels.tree[pandas]	ilpd	0.713551	0.0276638
sklearnmodels.tree[pandas]	madelon	0.618462	0.103643
sklearnmodels.tree[pandas]	nomao	0.714377	168.075
sklearnmodels.tree[pandas]	ozone-level-8hr	0.936859	0.132233
sklearnmodels.tree[pandas]	cnae-9	0.817593	0.629724

model	dataset	train_accuracy	train_time
sklearnmodels.tree[pandas]	first-order-theorem-proving	0.518797	1.24938
sklearnmodels.tree[pandas]	banknote-authentication	0.931487	0.0151141
sklearnmodels.tree[pandas]	blood-transfusion-service-center	0.762032	0.00305763
sklearnmodels.tree[pandas]	PhishingWebsites	0.888919	0.108738
sklearnmodels.tree[pandas]	cylinder-bands	0.577778	0.0355255
sklearnmodels.tree[pandas]	bank-marketing	0.883015	2.02662
sklearnmodels.tree[pandas]	GesturePhaseSegmentationProcessed	0.517877	1.03206
sklearnmodels.tree[pandas]	har	0.81105	1.00986
sklearnmodels.tree[pandas]	dresses-sales	0.592	0.0195343
sklearnmodels.tree[pandas]	texture	0.874545	0.925456
sklearnmodels.tree[pandas]	connect-4	0.685096	0.786565
sklearnmodels.tree[pandas]	MiceProtein	0.841667	0.677633
sklearnmodels.tree[pandas]	steel-plates-fault	0.765585	0.531725
sklearnmodels.tree[pandas]	climate-model-simulation-crashes	0.948148	0.0634524
sklearnmodels.tree[pandas]	wilt	0.946063	0.00170187
sklearnmodels.tree[pandas]	car	0.819444	0.0112391
sklearnmodels.tree[pandas]	segment	0.899134	0.159293
sklearnmodels.tree[pandas]	mfeat-pixel	0.8655	0.992691
sklearnmodels.tree[pandas]	Fashion-MNIST	0.726457	1.79138
sklearnmodels.tree[pandas]	jungle_chess_2pcs_raw_endgame_complete	0.721145	0.0350766
sklearnmodels.tree[pandas]	numerai28.6	0.50517	0.0509551
sklearnmodels.tree[pandas]	Devnagari-Script	0.365685	4.03759
sklearnmodels.tree[pandas]	CIFAR_10	0.302817	1.90862
sklearnmodels.tree[pandas]	Internet-Advertisements	0.914303	10.1537
sklearnmodels.tree[pandas]	dna	0.886064	0.883628
sklearnmodels.tree[pandas]	churn	0.8586	0.74771