

200X			
Model	Feature	Technique	CPU Time
HF + ML	Haralick	Decision Tree	22.949625
HF + ML	Haralick	Naive Bayes	22.949672
HF + ML	Haralick	SGD	22.950059
HF + ML	Haralick	Gradient Boosting	22.950698
HF + ML	Haralick	Linear SVM	22.972102
HF + ML	Haralick	Adaboost	22.973840
HF + ML	Haralick	KNN	22.986029
HF + ML	Haralick	Random Forest	22.991212
HF + ML	Haralick	Extremely Trees	23.001871
HF + ML	Haralick	SVM	23.002383
HF + ML	HOG	SGD	52.573966
HF + ML	HOG	Decision Tree	52.576207
HF + ML	HOG	Gradient Boosting	52.584191
HF + ML	HOG	Naive Bayes	52.594337
HF + ML	HOG	Random Forest	52.626793
HF + ML	HOG	Extremely Trees	52.648733
HF + ML	HOG	Adaboost	53.004460
HF + ML	HOG	Linear SVM	56.175076
HF + ML	HOG	SVM	56.323649
HF + ML	HOG	KNN	61.300827
DL + ML (TL)	IV3	SGD	72.2483961
DL + ML (TL)	IV3	Decision Tree	72.2485391
DL + ML (TL)	IV3	Naive Bayes	72.2502057
DL + ML (TL)	IV3	Gradient Boosting	72.2506003
DL + ML (TL)	IV3	Adaboost	72.3078152
DL + ML (TL)	IV3	Random Forest	72.3081972
DL + ML (TL)	IV3	Extremely Trees	72.3121452
DL + ML (TL)	IV3	KNN	72.6037402
DL + ML (TL)	IV3	Linear SVM	72.6470405
DL + ML (TL)	IV3	SVM	72.7688152
DL + ML (TL)	RESNET 152	SGD	88.5867472
DL + ML (TL)	RESNET 152	Decision Tree	88.5870596
DL + ML (TL)	RESNET 152	Naive Bayes	88.5885296
DL + ML (TL)	RESNET 152	Gradient Boosting	88.5894459
DL + ML (TL)	RESNET 152	Random Forest	88.6298656
DL + ML (TL)	RESNET 152	Extremely Trees	88.6457756
DL + ML (TL)	RESNET 152	Adaboost	88.6464455
DL + ML (TL)	RESNET 152	Linear SVM	88.8477782
DL + ML (TL)	RESNET 152	SVM	88.9777757
DL + ML (TL)	RESNET 152	KNN	89.2685252
DL + ML (FT)	IV3	Decision Tree	103.230673
DL + ML (FT)	IV3	SGD	103.230698
DL + ML (FT)	IV3	Gradient Boosting	103.233419
DL + ML (FT)	IV3	Naive Bayes	103.233529
DL + ML (FT)	IV3	Random Forest	103.289106
DL + ML (FT)	IV3	Extremely Trees	103.29772
DL + ML (FT)	IV3	Adaboost	103.303093
DL + ML (FT)	IV3	KNN	103.421389
DL + ML (FT)	IV3	Linear SVM	103.524387
DL + ML (FT)	IV3	SVM	103.742222
HF + ML	SIFT	SGD	117.315972
HF + ML	SIFT	Decision Tree	117.316254
HF + ML	SIFT	Gradient Boosting	117.317703
HF + ML	SIFT	Naive Bayes	117.317874
HF + ML	SIFT	Random Forest	117.355941
HF + ML	SIFT	Extremely Trees	117.364786
HF + ML	SIFT	Adaboost	117.378298
HF + ML	SIFT	Linear SVM	117.585569
HF + ML	SIFT	SVM	117.673236
HF + ML	SIFT	KNN	118.212388
DL + ML (FT)	RESNET 152	Decision Tree	118.243918
DL + ML (FT)	RESNET 152	SGD	118.243965
DL + ML (FT)	RESNET 152	Naive Bayes	118.245876
DL + ML (FT)	RESNET 152	Gradient Boosting	118.246078
DL + ML (FT)	RESNET 152	Random Forest	118.283346
DL + ML (FT)	RESNET 152	Extremely Trees	118.304264
DL + ML (FT)	RESNET 152	Adaboost	118.305237
DL + ML (FT)	RESNET 152	Linear SVM	118.488677
DL + ML (FT)	RESNET 152	SVM	118.743134
DL + ML (FT)	RESNET 152	KNN	118.755438
HF + ML	LPQ	SGD	128.710490
HF + ML	LPQ	Decision Tree	128.710629
HF + ML	LPQ	Naive Bayes	128.711796
HF + ML	LPQ	Gradient Boosting	128.712083
HF + ML	LPQ	Random Forest	128.747938
HF + ML	LPQ	Extremely Trees	128.755394
HF + ML	LPQ	Adaboost	128.760560
HF + ML	LPQ	Linear SVM	128.945836
HF + ML	LPQ	SVM	129.078242
HF + ML	LPQ	KNN	129.172948
HF + ML	LBP	Naive Bayes	129.368812

200X			
Model	Feature	Technique	GPU Time
HF + ML	Haralick	Decision Tree	22.103922
HF + ML	Haralick	Naive Bayes	22.103991
HF + ML	Haralick	Gradient Boosting	22.105697
HF + ML	Haralick	SGD	22.111777
HF + ML	Haralick	Linear SVM	22.124701
HF + ML	Haralick	Adaboost	22.132001
HF + ML	Haralick	KNN	22.144196
HF + ML	Haralick	Random Forest	22.145761
HF + ML	Haralick	Extremely Trees	22.154107
HF + ML	Haralick	SVM	22.154109
HF + ML	HOG	Gradient Boosting	41.187108
HF + ML	HOG	SGD	41.189361
HF + ML	HOG	Decision Tree	41.190998
HF + ML	HOG	Naive Bayes	41.209028
HF + ML	HOG	Random Forest	41.232490
HF + ML	HOG	Extremely Trees	41.258108
HF + ML	HOG	Adaboost	41.599033
HF + ML	HOG	Linear SVM	44.308439
HF + ML	HOG	SVM	44.619033
HF + ML	HOG	KNN	48.298089
DL + ML (TL)	IV3	SGD	52.854556
DL + ML (TL)	IV3	Decision Tree	52.8546737
DL + ML (TL)	IV3	Naive Bayes	52.8563428
DL + ML (TL)	IV3	Gradient Boosting	52.8564401
DL + ML (TL)	IV3	Random Forest	52.911476
DL + ML (TL)	IV3	Adaboost	52.9154027
DL + ML (TL)	IV3	Extremely Trees	52.9190906
DL + ML (TL)	IV3	KNN	53.1336353
DL + ML (TL)	IV3	Linear SVM	53.2189871
DL + ML (TL)	IV3	SVM	53.2973443
DL + ML (TL)	RESNET 152	SGD	58.962863
DL + ML (TL)	RESNET 152	Decision Tree	58.9631521
DL + ML (TL)	RESNET 152	Gradient Boosting	58.9646365
DL + ML (TL)	RESNET 152	Naive Bayes	58.9649033
DL + ML (TL)	RESNET 152	Random Forest	58.9974833
DL + ML (TL)	RESNET 152	Extremely Trees	59.0078637
DL + ML (TL)	RESNET 152	Adaboost	59.0171216
DL + ML (TL)	RESNET 152	Linear SVM	59.2239418
DL + ML (TL)	RESNET 152	SVM	59.3382972
DL + ML (TL)	RESNET 152	KNN	59.3835752
DL + ML (FT)	IV3	Decision Tree	59.5862637
DL + ML (FT)	IV3	SGD	59.5862956
DL + ML (FT)	IV3	Naive Bayes	59.5878228
DL + ML (FT)	IV3	Gradient Boosting	59.588455
DL + ML (FT)	IV3	Random Forest	59.6370098
DL + ML (FT)	IV3	Extremely Trees	59.6482079
DL + ML (FT)	IV3	Adaboost	59.6513377
DL + ML (FT)	IV3	KNN	59.7531344
DL + ML (FT)	IV3	Linear SVM	59.8203874
DL + ML (FT)	IV3	SVM	60.0666188
DL + ML (FT)	RESNET 152	Decision Tree	73.2697839
DL + ML (FT)	RESNET 152	SGD	73.269802
DL + ML (FT)	RESNET 152	Gradient Boosting	73.2711125
DL + ML (FT)	RESNET 152	Naive Bayes	73.2713243
DL + ML (FT)	RESNET 152	Random Forest	73.3049466
DL + ML (FT)	RESNET 152	Extremely Trees	73.3182762
DL + ML (FT)	RESNET 152	Adaboost	73.3238992
DL + ML (FT)	RESNET 152	Linear SVM	73.4781529
DL + ML (FT)	RESNET 152	KNN	73.7001578
DL + ML (FT)	RESNET 152	SVM	73.7780793
HF + ML	LPQ	SGD	107.654622
HF + ML	LPQ	Decision Tree	107.654644
HF + ML	LPQ	Gradient Boosting	107.655393
HF + ML	LPQ	Naive Bayes	107.655642
HF + ML	LPQ	Random Forest	107.67946
HF + ML	LPQ	Adaboost	107.689471
HF + ML	LPQ	Extremely Trees	107.693856
HF + ML	LPQ	Linear SVM	107.846671
HF + ML	LPQ	SVM	107.876971
HF + ML	LPQ	KNN	108.09676
HF + ML	LBP	Gradient Boosting	118.617174
HF + ML	LBP	SGD	118.617177
HF + ML	LBP	Naive Bayes	118.617358
HF + ML	LBP	Decision Tree	118.617377
HF + ML	LBP	Linear SVM	118.629497
HF + ML	LBP	Adaboost	118.646447
HF + ML	LBP	Random Forest	118.647296
HF + ML	LBP	SVM	118.650016
HF + ML	LBP	Extremely Trees	118.661156
HF + ML	LBP	KNN	118.667277
HF + ML	LBP + LPQ	SGD	226.271737

HF + ML	LBP	Decision Tree	129.368870
HF + ML	LBP	SGD	129.369155
HF + ML	LBP	Gradient Boosting	129.369759
HF + ML	LBP	Linear SVM	129.392079
HF + ML	LBP	Adaboost	129.393160
HF + ML	LBP	Random Forest	129.403319
HF + ML	LBP	Extremely Trees	129.411420
HF + ML	LBP	KNN	129.419030
HF + ML	LBP	SVM	129.421483
HF + ML	LBP + LPQ	SGD	258.078902
HF + ML	LBP + LPQ	Decision Tree	258.079126
HF + ML	LBP + LPQ	Naive Bayes	258.080513
HF + ML	LBP + LPQ	Gradient Boosting	258.080573
HF + ML	LBP + LPQ	Random Forest	258.115232
HF + ML	LBP + LPQ	Extremely Trees	258.124434
HF + ML	LBP + LPQ	Adaboost	258.130431
HF + ML	LBP + LPQ	Linear SVM	258.274852
HF + ML	LBP + LPQ	KNN	258.375476
HF + ML	LBP + LPQ	SVM	258.439435
HF + ML	LBP + LPQ + GLCM	SGD	281.028110
HF + ML	LBP + LPQ + GLCM	Decision Tree	281.028355
HF + ML	LBP + LPQ + GLCM	Gradient Boosting	281.029766
HF + ML	LBP + LPQ + GLCM	Naive Bayes	281.030040
HF + ML	LBP + LPQ + GLCM	Random Forest	281.064945
HF + ML	LBP + LPQ + GLCM	Extremely Trees	281.071863
HF + ML	LBP + LPQ + GLCM	Adaboost	281.081085
HF + ML	LBP + LPQ + GLCM	Linear SVM	281.210115
HF + ML	LBP + LPQ + GLCM	KNN	281.351690
HF + ML	LBP + LPQ + GLCM	SVM	281.392135
DL + ML (FT)	VGG 19	SGD	549.255292
DL + ML (FT)	VGG 19	Decision Tree	549.255296
DL + ML (FT)	VGG 19	Naive Bayes	549.257153
DL + ML (FT)	VGG 19	Gradient Boosting	549.258148
DL + ML (FT)	VGG 19	Random Forest	549.303909
DL + ML (FT)	VGG 19	Extremely Trees	549.322712
DL + ML (FT)	VGG 19	Adaboost	549.327528
DL + ML (FT)	VGG 19	Linear SVM	549.456412
DL + ML (FT)	VGG 19	SVM	549.774613
DL + ML (FT)	VGG 19	KNN	549.775528
DL + ML (FT)	VGG 19 + RESNET 152	Decision Tree	667.498964
DL + ML (FT)	VGG 19 + RESNET 152	SGD	667.498984
DL + ML (FT)	VGG 19 + RESNET 152	Naive Bayes	667.502875
DL + ML (FT)	VGG 19 + RESNET 152	Gradient Boosting	667.503075
DL + ML (FT)	VGG 19 + RESNET 152	Random Forest	667.530375
DL + ML (FT)	VGG 19 + RESNET 152	Extremely Trees	667.546871
DL + ML (FT)	VGG 19 + RESNET 152	Adaboost	667.69198
DL + ML (FT)	VGG 19 + RESNET 152	Linear SVM	667.773031
DL + ML (FT)	VGG 19 + RESNET 152	SVM	668.648738
DL + ML (FT)	VGG 19 + RESNET 152	KNN	668.652314
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SGD	770.729234
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Decision Tree	770.729447
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	770.731815
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Naive Bayes	770.733115
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Random Forest	770.766858
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Extremely Trees	770.770416
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Linear SVM	771.050449
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Adaboost	771.080505
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	KNN	771.292858
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SVM	772.668805
DL	Xception	LSTM	780.501035
DL + ML (TL)	VGG 19	SGD	1021.2596
DL + ML (TL)	VGG 19	Decision Tree	1021.25969
DL + ML (TL)	VGG 19	Gradient Boosting	1021.26101
DL + ML (TL)	VGG 19	Naive Bayes	1021.26106
DL + ML (TL)	VGG 19	Random Forest	1021.29146
DL + ML (TL)	VGG 19	Extremely Trees	1021.29902
DL + ML (TL)	VGG 19	Adaboost	1021.32011
DL + ML (TL)	VGG 19	Linear SVM	1021.40835
DL + ML (TL)	VGG 19	SVM	1021.79022
DL + ML (TL)	VGG 19	KNN	1022.23405
DL + ML (TL)	VGG 19 + RESNET 152	SGD	1109.84633
DL + ML (TL)	VGG 19 + RESNET 152	Decision Tree	1109.84662
DL + ML (TL)	VGG 19 + RESNET 152	Gradient Boosting	1109.84942
DL + ML (TL)	VGG 19 + RESNET 152	Naive Bayes	1109.85127
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest	1109.89723
DL + ML (TL)	VGG 19 + RESNET 152	Extremely Trees	1109.89827
DL + ML (TL)	VGG 19 + RESNET 152	Adaboost	1110.06634
DL + ML (TL)	VGG 19 + RESNET 152	Linear SVM	1110.13723
DL + ML (TL)	VGG 19 + RESNET 152	SVM	1110.43603
DL + ML (TL)	VGG 19 + RESNET 152	KNN	1111.95723
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	SGD	1182.09486
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Decision Tree	1182.09502
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	1182.09752

HF + ML	LBP + LPQ	Decision Tree	226.271896
HF + ML	LBP + LPQ	Gradient Boosting	226.272311
HF + ML	LBP + LPQ	Naive Bayes	226.273339
HF + ML	LBP + LPQ	Linear SVM	226.288406
HF + ML	LBP + LPQ	Random Forest	226.308147
HF + ML	LBP + LPQ	Extremely Trees	226.309814
HF + ML	LBP + LPQ	Adaboost	226.321901
HF + ML	LBP + LPQ	KNN	226.565814
HF + ML	LBP + LPQ	SVM	226.603606
HF + ML	LBP + LPQ + GLCM	Decision Tree	248.375279
HF + ML	LBP + LPQ + GLCM	SGD	248.375279
HF + ML	LBP + LPQ + GLCM	Gradient Boosting	248.376214
HF + ML	LBP + LPQ + GLCM	Naive Bayes	248.376579
HF + ML	LBP + LPQ + GLCM	Random Forest	248.414636
HF + ML	LBP + LPQ + GLCM	Adaboost	248.420443
HF + ML	LBP + LPQ + GLCM	Extremely Trees	248.421110
HF + ML	LBP + LPQ + GLCM	Linear SVM	248.567951
HF + ML	LBP + LPQ + GLCM	KNN	248.670410
HF + ML	LBP + LPQ + GLCM	SVM	248.720408
DL + ML (FT)	VGG 19	Decision Tree	429.622239
DL + ML (FT)	VGG 19	SGD	429.62224
DL + ML (FT)	VGG 19	Naive Bayes	429.623917
DL + ML (FT)	VGG 19	Gradient Boosting	429.624422
DL + ML (FT)	VGG 19	Random Forest	429.669068
DL + ML (FT)	VGG 19	Extremely Trees	429.683236
DL + ML (FT)	VGG 19	Adaboost	429.688925
DL + ML (FT)	VGG 19	Linear SVM	429.761082
DL + ML (FT)	VGG 19	KNN	430.101511
DL + ML (FT)	VGG 19	SVM	430.116344
DL + ML (FT)	VGG 19 + RESNET 152	SGD	502.891378
DL + ML (FT)	VGG 19 + RESNET 152	Decision Tree	502.89149
DL + ML (FT)	VGG 19 + RESNET 152	Naive Bayes	502.894697
DL + ML (FT)	VGG 19 + RESNET 152	Gradient Boosting	502.895158
DL + ML (FT)	VGG 19 + RESNET 152	Random Forest	502.92399
DL + ML (FT)	VGG 19 + RESNET 152	Extremely Trees	502.937143
DL + ML (FT)	VGG 19 + RESNET 152	Adaboost	503.067631
DL + ML (FT)	VGG 19 + RESNET 152	Linear SVM	503.136927
DL + ML (FT)	VGG 19 + RESNET 152	KNN	503.867104
DL + ML (FT)	VGG 19 + RESNET 152	SVM	503.966904
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SGD	562.476862
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Decision Tree	562.477482
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	562.479784
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Naive Bayes	562.481312
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Random Forest	562.508396
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Extremely Trees	562.516749
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Adaboost	562.699714
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Linear SVM	562.810697
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	KNN	562.999144
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SVM	564.042984
DL	Xception	LSTM	574.365181
HF + ML	SIFT	SGD	664.147836
HF + ML	SIFT	Decision Tree	664.148117
HF + ML	SIFT	Gradient Boosting	664.149227
HF + ML	SIFT	Naive Bayes	664.150230
HF + ML	SIFT	Random Forest	664.187216
HF + ML	SIFT	Extremely Trees	664.193776
HF + ML	SIFT	Adaboost	664.207336
HF + ML	SIFT	Linear SVM	664.359531
HF + ML	SIFT	SVM	664.503756
HF + ML	SIFT	KNN	664.711776
DL + ML (TL)	VGG 19	SGD	843.530962
DL + ML (TL)	VGG 19	Decision Tree	843.531
DL + ML (TL)	VGG 19	Naive Bayes	843.532376
DL + ML (TL)	VGG 19	Gradient Boosting	843.532551
DL + ML (TL)	VGG 19	Random Forest	843.564213
DL + ML (TL)	VGG 19	Extremely Trees	843.574405
DL + ML (TL)	VGG 19	Adaboost	843.584501
DL + ML (TL)	VGG 19	Linear SVM	843.672643
DL + ML (TL)	VGG 19	SVM	843.993551
DL + ML (TL)	VGG 19	KNN	844.369718
DL + ML (TL)	VGG 19 + RESNET 152	SGD	902.493586
DL + ML (TL)	VGG 19 + RESNET 152	Decision Tree	902.494312
DL + ML (TL)	VGG 19 + RESNET 152	Gradient Boosting	902.496101
DL + ML (TL)	VGG 19 + RESNET 152	Naive Bayes	902.497655
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest	902.537885
DL + ML (TL)	VGG 19 + RESNET 152	Extremely Trees	902.547082
DL + ML (TL)	VGG 19 + RESNET 152	Adaboost	902.685887
DL + ML (TL)	VGG 19 + RESNET 152	Linear SVM	902.708567
DL + ML (TL)	VGG 19 + RESNET 152	SVM	903.082704
DL + ML (TL)	VGG 19 + RESNET 152	KNN	904.01876
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	SGD	955.347612
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Decision Tree	955.348474
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	955.351431

DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Naive Bayes	1182.10054
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Extremely Trees	1182.14202
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Random Forest	1182.14393
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Adaboost	1182.40426
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Linear SVM	1182.41393
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	SVM	1182.98501
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	KNN	1184.98482
DL		ResNet 152	24147.3618

DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Naive Bayes	955.352917
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Random Forest	955.392296
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Extremely Trees	955.400854
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Adaboost	955.609083
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Linear SVM	955.688929
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	SVM	956.101509
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	KNN	957.586435
DL		ResNet 152	6237.49428