Model	Feature 4	00X Technique	CPU Time
HF + ML	Haralick	Decision Tree	23.983297
HF + ML	Haralick	Naive Bayes	23.983343
HF + ML	Haralick	SGD	23.983400
HF + ML	Haralick	Gradient Boosting	23.985257
IF + ML	Haralick	Linear SVM	24.001595
HF + ML	Haralick	Adaboost	24.006656
HF + ML HF + ML	Haralick Haralick	KNN Random Forest	24.015818 24.018934
HF + ML	Haralick	SVM	24.018934
HF + ML	Haralick	Extremely Trees	24.029049
HF + ML	HOG	SGD	44.078256
HF + ML	HOG	Decision Tree	44.080437
HF + ML	HOG	Gradient Boosting	44.087507
HF + ML	ноб	Naive Bayes	44.095536
HF + ML	HOG	Random Forest	44.124810
HF + ML	HOG	Extremely Trees	44.142294
HF + ML	HOG	Adaboost	44.393362
HF + ML	HOG	Linear SVM	47.375111
HF + ML	HOG	SVM	47.474426
HF + ML	HOG	KNN	52.183102
DL + ML (TL)	IV3	Decision Tree	59.5580101
DL + ML (TL)	IV3	SGD	59.5581791
DL + ML (TL)	IV3	Gradient Boosting	59.5592435
DL + ML (TL)	IV3	Naive Bayes	59.5598303
DL + ML (TL)	IV3	Random Forest	59.6020761
DL + ML (TL)	IV3	Extremely Trees	59.6076522
DL + ML (TL)	IV3	Adaboost	59.6207159
DL + ML (TL)	RESNET 152	KNN	59.8140593
DL + ML (TL)	IV3	Linear SVM	60.0261535
DL + ML (TL)	IV3	SVM	60.1389772
DL + ML (TL)	RESNET 152	SGD	73.2605575
DL + ML (TL)	RESNET 152	Decision Tree	73.2608885
DL + ML (TL)	RESNET 152	Gradient Boosting	73.2621214
DL + ML (TL)	RESNET 152	Naive Bayes	73.2647513
DL + ML (TL)	RESNET 152	Random Forest	73.2900329
DL + ML (TL)	RESNET 152	Extremely Trees Adaboost	73.3196117
DL + ML (TL)	RESNET 152		73.3294187
DL + ML (FT) DL + ML (FT)	IV3 IV3	SGD Decision Tree	73.6602972 73.6604605
DL + ML (FT) DL + ML (FT)	IV3	Gradient Boosting	73.6618691
DL + ML (FT) DL + ML (FT)	IV3	Naive Bayes	73.6634591
DL + ML (FI)		Linear SVM	73.6867544
DL + ML (FT)	IV3	Random Forest	73.7212269
DL + ML (FT)	IV3	Adaboost	73.7212203
DL + ML (FT)	IV3	Extremely Trees	73.7409302
DL + ML (TL)	RESNET 152	SVM	73.7455952
DL + ML (TL)	RESNET 152	KNN	73.7899373
DL + ML (FT)	IV3	Linear SVM	73.8741633
DL + ML (FT)	RESNET 152	KNN	74.0012339
DL + ML (FT)	IV3	SVM	74.091831
HF + ML	LPQ	Decision Tree	75.7514219
HF + ML	LPQ	SGD	75.7514519
HF + ML	LPQ	Naive Bayes	75.7529381
HF + ML	LPQ	Gradient Boosting	75.7531587
HF + ML	LPQ	Random Forest	75.7845163
HF + ML	LPQ	Extremely Trees	75.7922226
HF + ML	LPQ	Adaboost	75.8085503
HF + ML	LPQ	Linear SVM	75.9793387
HF + ML	LPQ	SVM	76.1024232
HF + ML	LPQ	KNN	76.1151511
DL + ML (FT)	RESNET 152	SGD	83.5334112
DL + ML (FT)	RESNET 152	Decision Tree	83.5334245
DL + ML (FT)	RESNET 152	Naive Bayes	83.5343002
DL + ML (FT)	RESNET 152	Gradient Boosting	83.5358042
DL + ML (FT)	RESNET 152	Random Forest	83.5766002
DL + ML (FT)	RESNET 152	Extremely Trees	83.5920301
DL + ML (FT)	RESNET 152	Adaboost	83.5957046
DL + ML (FT)	RESNET 152	Linear SVM	83.8549942
DL + ML (FT)	RESNET 152	KNN	84.0024856
DL + ML (FT)	RESNET 152	SVM	84.1139906
HF + ML	LBP	Decision Tree	121.434195
HF + ML	LBP	Naive Bayes	121.434335
HF + ML	LBP	SGD	121.434478
HF + ML	LBP	Gradient Boosting	121.435162
HF + ML	LBP	Linear SVM	121.455263
HF + ML	LBP	Adaboost	121.456869
HF + ML	LBP	Random Forest	121.468182
HF + ML	LBP	KNN	121.475046
	LBP	Extremely Trees	121.476723
HF + ML HF + ML	LBP	SVM	121.481375

	400X		
Model	Feature	Technique	GPU Time
HF + ML	Haralick	Naive Bayes	19.150085
HF + ML	Haralick	Decision Tree	19.150102
HF + ML HF + ML	Haralick Haralick	SGD Gradient Boosting	19.150107 19.151750
HF + ML	Haralick	Linear SVM	19.164257
HF + ML	Haralick	Adaboost	19.173258
HF + ML	Haralick	Random Forest	19.180255
HF + ML	Haralick	KNN	19.180255
HF + ML HF + ML	Haralick Haralick	SVM Extremely Trees	19.190209 19.193348
HF + ML	HOG	Naive Bayes	35.542774
HF + ML	HOG	Decision Tree	35.547263
HF + ML	HOG	SGD	35.547730
HF + ML	HOG	Gradient Boosting	35.553874
HF + ML HF + ML	HOG HOG	Random Forest Adaboost	35.588738 35.860074
HF + ML	HOG	SVM	38.544139
HF + ML	ноб	Linear SVM	38.848263
DL + ML (TL)	IV3	SGD	39.344051
DL + ML (TL)	IV3	Decision Tree	39.3443572
DL + ML (TL) DL + ML (TL)	IV3 IV3	Naive Bayes Gradient Boosting	39.3456096 39.3458988
DL + ML (TL)	IV3	Random Forest	39.3812475
DL + ML (TL)	IV3	Adaboost	39.3981582
DL + ML (TL)	IV3	Extremely Trees	39.3994387
DL + ML (TL)	IV3	KNN	39.5241738
DL + ML (TL) DL + ML (TL)	IV3	Linear SVM SVM	39.7588168 39.8353842
HF + ML	HOG	Extremely Trees	41.666549
HF + ML	HOG	KNN	43.548030
DL + ML (TL)	RESNET 152	SGD	44.2818375
DL + ML (TL)	RESNET 152	Decision Tree	44.2821622
DL + ML (TL)	RESNET 152	Naive Bayes	44.2835079
DL + ML (TL) DL + ML (TL)	RESNET 152 RESNET 152	Gradient Boosting Random Forest	44.2836996 44.3157513
DL + ML (TL)	RESNET 152	Extremely Trees	44.3255616
DL + ML (TL)	RESNET 152	Adaboost	44.3339732
DL + ML (TL)	RESNET 152	Linear SVM	44.5190161
DL + ML (TL)	RESNET 152	SVM	44.6521683
DL + ML (TL) DL + ML (FT)	RESNET 152 IV3	KNN SGD	44.6820567 45.5400668
DL + ML (FT)	IV3	Decision Tree	45.5402313
DL + ML (FT)	IV3	Naive Bayes	45.5422287
DL + ML (FT)	IV3	Gradient Boosting	45.5426169
DL + ML (FT) DL + ML (FT)	IV3	Random Forest Extremely Trees	45.5935125 45.6028214
DL + ML (FT)	IV3	Adaboost	45.6039999
DL + ML (FT)	IV3	Linear SVM	45.7395555
DL + ML (FT)	IV3	KNN	45.7573495
DL + ML (FT)	IV3	SVM	45.9343377
DL + ML (FT) DL + ML (FT)	RESNET 152 RESNET 152	SGD Decision Tree	55.5231101 55.5231838
DL + ML (FT)	RESNET 152	Naive Bayes	55.5245807
DL + ML (FT)	RESNET 152	Gradient Boosting	55.5247692
DL + ML (FT)	RESNET 152	Random Forest	55.5602261
DL + ML (FT)	RESNET 152	Extremely Trees	55.5742892
DL + ML (FT)	RESNET 152 RESNET 152	Adaboost Linear SVM	55.57877
DL + ML (FT) DL + ML (FT)	RESNET 152	KNN	55.7336945 55.8667869
DL + ML (FT)	RESNET 152	SVM	56.0508692
HF + ML	LBP	Decision Tree	102.526222
HF + ML	LBP	Naive Bayes	102.526222
HF + ML HF + ML	LBP + LPQ LBP + LPQ	SGD Desision Tree	102.526385 102.526695
HF + ML	LBP	Decision Tree Gradient Boosting	102.526849
HF + ML	LBP + LPQ	Gradient Boosting	102.527823
HF + ML	LBP + LPQ	Naive Bayes	102.528392
HF + ML	LBP	SGD	102.533088
HF + ML HF + ML	LBP	Adaboost Linear SVM	102.545324 102.546469
HF + ML	LBP	Random Forest	102.546469
HF + ML	LBP + LPQ	Random Forest	102.559469
HF + ML	LBP + LPQ	Extremely Trees	102.563754
HF + ML	LBP	KNN	102.566009
HF + ML HF + ML	LBP	Extremely Trees SVM	102.566429 102.568549
HF + ML	LBP + LPQ	Adaboost	102.568549
HF + ML	LBP + LPQ	Linear SVM	102.731523
HF + ML	LBP + LPQ	KNN	102.761549
HF + ML	LBP + LPQ	SVM	102.871549

	linn i ino	I COD	1407405020
HF + ML	LBP + LPQ	SGD	197.185020
HF + ML	LBP + LPQ	Decision Tree	197.185230
HF + ML	LBP + LPQ	Naive Bayes	197.186968
HF + ML	LBP + LPQ	Gradient Boosting	197.187082
HF + ML	LBP + LPQ	Random Forest	197.219434
HF + ML	LBP + LPQ	Extremely Trees	197.225319
HF + ML	LBP + LPQ	Adaboost	197.244754
HF + ML	LBP + LPQ	Linear SVM	197.381160
HF + ML	LBP + LPQ	KNN	197.426053
HF + ML	LBP + LPQ	SVM	197.534970
HF + ML	LBP + LPQ + GLCM	SGD	221.167995
HF + ML	LBP + LPQ + GLCM	Decision Tree	221.168179
HF + ML	LBP + LPQ + GLCM	Gradient Boosting	221.170057
HF + ML	LBP + LPQ + GLCM	Naive Bayes	221.170077
HF + ML	LBP + LPQ + GLCM	Random Forest	221.201273
HF + ML	LBP + LPQ + GLCM	Extremely Trees	221.201273
	·	Adaboost	1
HF + ML	LBP + LPQ + GLCM		221.229792
HF + ML	LBP + LPQ + GLCM	Linear SVM	221.338708
HF + ML	LBP + LPQ + GLCM	KNN	221.482306
HF + ML	LBP + LPQ + GLCM	SVM	221.508052
HF + ML	SIFT	SGD	477.241897
HF + ML	SIFT	Decision Tree	477.242143
HF + ML	SIFT	Naive Bayes	477.243669
HF + ML	SIFT	Gradient Boosting	477.243803
HF + ML	SIFT	Random Forest	477.281569
HF + ML	SIFT	Extremely Trees	477.289242
HF + ML	SIFT	Adaboost	477.298435
HF + ML	SIFT	Linear SVM	477.519191
HF + ML	SIFT	SVM	477.607498
HF + ML	SIFT	KNN	478.073895
DL TIVIL	Xception	LSTM	494.32974
	VGG 19	SGD	l
DL + ML (FT)	VGG 19 VGG 19	Decision Tree	611.256342 611.256642
DL + ML (FT)			
DL + ML (FT)	VGG 19	Gradient Boosting	611.258012
DL + ML (FT)	VGG 19	Naive Bayes	611.259012
DL + ML (FT)	VGG 19	Extremely Trees	611.316171
DL + ML (FT)	VGG 19	Random Forest	611.324578
DL + ML (FT)	VGG 19	Adaboost	611.334203
DL + ML (FT)	VGG 19	Linear SVM	611.490838
DL + ML (FT)	VGG 19	SVM	611.577843
DL + ML (FT)	VGG 19	KNN	611.829798
DL + ML (FT)	VGG 19 + RESNET 152	Decision Tree	694.788987
DL + ML (FT)	VGG 19 + RESNET 152	SGD	694.789087
DL + ML (FT)	VGG 19 + RESNET 152	Naive Bayes	694.793122
DL + ML (FT)	VGG 19 + RESNET 152	Gradient Boosting	694.794978
DL + ML (FT)	VGG 19 + RESNET 152	Random Forest	694.857378
DL + ML (FT)	VGG 19 + RESNET 152	Extremely Trees	694.886688
DL + ML (FT)		Linear SVM	
	VGG 19 + RESNET 152		695.183717
DL + ML (FT)	VGG 19 + RESNET 152	Adaboost	695.280417
DL + ML (FT)	VGG 19 + RESNET 152	KNN	695.529382
DL + ML (FT)	VGG 19 + RESNET 152	SVM	695.78881
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Decision Tree	768.449832
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SGD	768.449882
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	768.45467
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Naive Bayes	768.455692
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Random Forest	768.527762
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Extremely Trees	768.547942
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Linear SVM	768.971081
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	KNN	769.189002
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Adaboost	769.189461
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SVM	770.335622
DL + ML (TL)	VGG 19	SGD	883.150707
DL + ML (TL)	VGG 19	Decision Tree	883.150777
DL + ML (TL)	VGG 19	Naive Bayes	883.15189
DL + ML (TL)	VGG 19	Gradient Boosting	883.15374
	LAGG T2	Extremely Trees	
DL + ML (TL)	VCC 10	CATTEMPIA ILEGE	883.207536
DL + ML (TL)	VGG 19	Random Forest	883.215631
DL + ML (TL)	VGG 19 VGG 19	Random Forest Adaboost	883.215631 883.228431
DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19	Random Forest Adaboost Linear SVM	883.215631 883.228431 883.315431
DL + ML (TL) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19	Random Forest Adaboost Linear SVM	883.215631 883.228431 883.315431 883.902196
DL + ML (TL) DL + ML (TL) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19 VGG 19	Random Forest Adaboost Linear SVM SVM KNN	883.215631 883.228431 883.315431 883.902196 884.081127
DL + ML (TL) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19	Random Forest Adaboost Linear SVM	883.215631 883.228431 883.315431 883.902196
DL + ML (TL) DL + ML (TL) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19 VGG 19 VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN	883.215631 883.228431 883.315431 883.902196 884.081127
DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19 VGG 19 VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096
DL + ML (TL)	VGG 19 + RESNET 152 VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495
DL + ML (TL)	VGG 19 + RESNET 152 VGG 19 + RESNET 152 VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193 956.41715 956.50448
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193 956.41715 956.50448 956.562255
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193 956.41715 956.50448 956.562255 956.655112
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM Adaboost	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193 956.41715 956.50448 956.562255 956.655112
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM Adaboost SVM	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193 956.41715 956.50448 956.562255 956.655112 956.864061 957.155534
DL + ML (TL)	VGG 19 + RESNET 152	Random Forest Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM Adaboost	883.215631 883.228431 883.315431 883.902196 884.081127 956.41096 956.413495 956.416193 956.41715 956.50448 956.562255 956.655112

HF + ML	IBB - IBO - CICM	SGD	121 676270
HF + ML	LBP + LPQ + GLCM LBP + LPQ + GLCM	Decision Tree	121.676279
HF + ML	LBP + LPQ + GLCM	Gradient Boosting	121.677015
HF + ML	LBP + LPQ + GLCM	Naive Bayes	121.678057
HF + ML	LBP + LPQ + GLCM	Random Forest	121.702755
HF + ML	LBP + LPQ + GLCM	Extremely Trees	121.702733
HF + ML	LBP + LPQ + GLCM	Adaboost	121.714473
HF + ML	·	Linear SVM	+
	LBP + LPQ + GLCM		121.852167
HF + ML	LBP + LPQ + GLCM	KNN	121.988817
HF + ML	LBP + LPQ + GLCM	SVM	122.011247
HF + ML	LPQ	SGD	157.345698
HF + ML	LPQ	Decision Tree	157.34622
HF + ML	LPQ	Naive Bayes	157.347645
HF + ML	LPQ	Gradient Boosting	157.348262
HF + ML	LPQ	Random Forest	157.381261
HF + ML	LPQ	Extremely Trees	157.386492
HF + ML	LPQ	Adaboost	157.409055
HF + ML	LPQ	Linear SVM	157.569773
HF + ML	LPQ	SVM	157.745262
HF + ML	LPQ	KNN	157.801672
HF + ML	SIFT	SGD	338.442489
HF + ML	SIFT	Decision Tree	338.442512
HF + ML	SIFT	Naive Bayes	338.443905
HF + ML	SIFT	Gradient Boosting	338.444012
HF + ML	SIFT	Adaboost	338.465405
HF + ML	SIFT	Random Forest	338.477343
HF + ML	SIFT	Extremely Trees	338.483108
HF + ML	SIFT	Linear SVM	338.657074
HF + ML	SIFT	SVM	338.802005
HF + ML	SIFT	KNN	338.802003
			376.848185
DL + MI /ET)	Xception	LSTM	0.0.0.0
DL + ML (FT)	VGG 19	SGD	418.268573
	VGG 19	Decision Tree	418.268765
· ,	VGG 19	Naive Bayes	418.270509
· ,	VGG 19	Gradient Boosting	418.271104
	VGG 19	Random Forest	418.313817
DL + ML (FT)	VGG 19	Extremely Trees	418.326584
DL + ML (FT)	VGG 19	Adaboost	418.331701
DL + ML (FT)	VGG 19	Linear SVM	418.459833
DL + ML (FT)	VGG 19	SVM	418.501296
DL + ML (FT)	VGG 19	KNN	418.688032
DL + ML (FT)	VGG 19 + RESNET 152	SGD	473.791206
DL + ML (FT)	VGG 19 + RESNET 152	Decision Tree	473.791593
DL + ML (FT)	VGG 19 + RESNET 152	Naive Bayes	473.793984
DL + ML (FT)	VGG 19 + RESNET 152	Gradient Boosting	473.795693
DL + ML (FT)	VGG 19 + RESNET 152	Random Forest	473.859867
DL + ML (FT)	VGG 19 + RESNET 152	Extremely Trees	473.880574
	VGG 19 + RESNET 152	Adaboost	474.103346
<u> </u>	VGG 19 + RESNET 152	Linear SVM	474.168501
	VGG 19 + RESNET 152	KNN	474.423226
	VGG 19 + RESNET 152	SVM	474.732778
	VGG 19 + RESNET 152 + IV3	SGD	519.33095
	VGG 19 + RESNET 152 + IV3	Decision Tree	519.331428
DL + ML (FT)	VGG 19 + RESNET 152 + IV3		1
		Naive Bayes Gradient Boosting	519.335136
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	519.335676
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Random Forest	519.40091
. ,	VGG 19 + RESNET 152 + IV3	Extremely Trees	519.424173
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Adaboost	519.760665
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	Linear SVM	519.838259
	VGG 19 + RESNET 152 + IV3	KNN	519.963468
	1.00.40		520.797304
DL + ML (FT)	VGG 19 + RESNET 152 + IV3	SVM	
DL + ML (FT) DL + ML (TL)	VGG 19	SGD	
DL + ML (FT) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19	SGD Decision Tree	660.320085
DL + ML (FT) DL + ML (TL) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19	SGD Decision Tree Naive Bayes	660.320085 660.32145
DL + ML (FT) DL + ML (TL) DL + ML (TL) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting	660.320085 660.32145 660.321767
DL + ML (FT) DL + ML (TL)	VGG 19 VGG 19 VGG 19 VGG 19 VGG 19	SGD Decision Tree Naive Bayes	660.320085 660.32145 660.321767
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees	660.320085 660.32145 660.321767 660.35264
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost	660.320085 660.32145 660.321767 660.35264 660.359688
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253
DL + ML (FT) DL + ML (TL)	VGG 19	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601822
DL + ML (FT) DL + ML (TL)	VGG 19 + RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601822 704.601888
DL + ML (FT) DL + ML (TL)	VGG 19 + RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601885 704.605096
DL + ML (FT) DL + ML (TL)	VGG 19 VGG 19+ RESNET 152 VGG 19 + RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601822 704.601885 704.605096 704.606102
DL + ML (FT) DL + ML (TL)	VGG 19 VGG 19+ RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601822 704.601889 704.605096 704.689242
DL + ML (FT) DL + ML (TL)	VGG 19 VGG 19+ RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601885 704.605096 704.689242 704.707178
DL + ML (FT) DL + ML (TL)	VGG 19 VGG 19+ RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601822 704.601885 704.605096 704.689242 704.707178 704.793355
DL + ML (FT) DL + ML (TL) DL + ML (TL)	VGG 19 VGG 19+ RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM	660.320053 660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601882 704.605096 704.606102 704.69242 704.707178 704.793359 704.984435
DL + ML (FT) DL + ML (TL)	VGG 19 VGG 19+ RESNET 152 VGG 19 + RESNET 152	SGD Decision Tree Naive Bayes Gradient Boosting Random Forest Extremely Trees Adaboost Linear SVM SVM KNN Decision Tree SGD Naive Bayes Gradient Boosting Random Forest Extremely Trees Linear SVM	660.320085 660.32145 660.321767 660.35264 660.359688 660.370924 660.452743 660.782608 661.076253 704.601822 704.601885 704.605096 704.689242 704.707178 704.793355

DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Decision Tree	1015.97065
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Naive Bayes	1015.97635
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	1015.97666
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Random Forest	1016.06515
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Extremely Trees	1016.09858
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Linear SVM	1016.26518
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Adaboost	1016.49889
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	SVM	1016.90309
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	KNN	1018.463
DL		ResNet 152	22527.8714

DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Decision Tree	743.94617
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Naive Bayes	743.949952
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Gradient Boosting	743.952195
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Random Forest	744.030352
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Extremely Trees	744.047034
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Linear SVM	744.221993
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	Adaboost	744.426809
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	SVM	744.670923
DL + ML (TL)	VGG 19 + RESNET 152 + IV3	KNN	746.002461
DL		ResNet 152	10362.7699