[INFO] 2023-01-03 09:42:34,089 - Configuration file: '/Users/aclorena/Documents/Lorena/Artigos meus/ICML2023/TentativaICML/sjc\_internacao/config.yaml'

[INFO] 2023-01-03 09:42:34,096 - Reading input dataset: '/Users/aclorena/Documents/Lorena/Artigos meus/ICML2023/TentativaICML/sjc\_internacao/sjc\_internacao.csv'

[INFO] 2023-01-03 09:42:34,112 - Type of problem: 'classification'

/Users/aclorena/opt/anaconda3/envs/pyhard/lib/python3.10/site-packages/pyhard/validator.py:70: FutureWarning: In a future version of pandas all arguments of DataFrame.any and Series.any will be keyword-only.

assert not data.isnull().any(None), "Data should not contain NaN values." # noqa

[WARNING] 2023-01-03 09:42:34,114 - Classes are unbalanced (imbalance ratio > 1.5). This may change the way the results are interpreted.

[INFO] 2023-01-03 09:42:34,114 - Seed=0

[INFO] 2023-01-03 09:42:34,114 - Building metadata.

[INFO] 2023-01-03 09:49:59,293 - Calculating measure 'CL'

[INFO] 2023-01-03 09:49:59,412 - Calculating measure 'CLD'

[INFO] 2023-01-03 09:49:59,416 - Calculating measure 'DCP'

[INFO] 2023-01-03 09:50:15,365 - Calculating measure 'F1'

[INFO] 2023-01-03 09:50:15,432 - Calculating measure 'Harmfulness'

[INFO] 2023-01-03 09:50:27,016 - Calculating measure 'LSC'

[INFO] 2023-01-03 09:50:38,742 - Calculating measure 'LSR'

[INFO] 2023-01-03 09:50:52,094 - Calculating measure 'N1'

[INFO] 2023-01-03 10:36:51,859 - Calculating measure 'N2'

[INFO] 2023-01-03 10:37:39,361 - Calculating measure 'TD\_P'

[INFO] 2023-01-03 10:37:41,137 - Calculating measure 'TD\_U'

[INFO] 2023-01-03 10:37:42,827 - Calculating measure 'Usefulness'

[INFO] 2023-01-03 10:37:50,082 - Calculating measure 'kDN'

[INFO] 2023-01-03 10:37:53,751 - Assessing performance of classifier 'bagging'

[INFO] 2023-01-03 10:37:53,771 - Estimating instance performance...

[INFO] 2023-01-03 10:37:53,793 - Evaluating testing fold #1

[INFO] 2023-01-03 10:37:53,825 - Calibrating probabilities

[INFO] 2023-01-03 10:37:56,728 - Test fold mean accuracy: 0.9612790407194604

[INFO] 2023-01-03 10:37:56,728 - Evaluating testing fold #2

[INFO] 2023-01-03 10:37:56,732 - Calibrating probabilities

[INFO] 2023-01-03 10:37:57,491 - Test fold mean accuracy: 0.9602698650674663

[INFO] 2023-01-03 10:37:57,492 - Evaluating testing fold #3

[INFO] 2023-01-03 10:37:57,498 - Calibrating probabilities

[INFO] 2023-01-03 10:37:58,256 - Test fold mean accuracy: 0.9640179910044977

[INFO] 2023-01-03 10:37:58,256 - Evaluating testing fold #4

[INFO] 2023-01-03 10:37:58,266 - Calibrating probabilities

[INFO] 2023-01-03 10:37:59,041 - Test fold mean accuracy: 0.9652673663168416

[INFO] 2023-01-03 10:37:59,042 - Evaluating testing fold #5

[INFO] 2023-01-03 10:37:59,045 - Calibrating probabilities

[INFO] 2023-01-03 10:37:59,785 - Test fold mean accuracy: 0.960519740129935

[INFO] 2023-01-03 10:37:59,785 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:37:59,789 - Mean accuracy on test instances (iteration #1): 0.9623

[INFO] 2023-01-03 10:37:59,795 - Assessing performance of classifier 'gradient\_boosting'

[INFO] 2023-01-03 10:37:59,796 - Estimating instance performance...

[INFO] 2023-01-03 10:37:59,798 - Evaluating testing fold #1

[INFO] 2023-01-03 10:37:59,802 - Calibrating probabilities

[INFO] 2023-01-03 10:38:01,768 - Test fold mean accuracy: 0.9707719210592056

[INFO] 2023-01-03 10:38:01,768 - Evaluating testing fold #2

[INFO] 2023-01-03 10:38:01,771 - Calibrating probabilities

[INFO] 2023-01-03 10:38:03,732 - Test fold mean accuracy: 0.9685157421289355

[INFO] 2023-01-03 10:38:03,733 - Evaluating testing fold #3

[INFO] 2023-01-03 10:38:03,736 - Calibrating probabilities

[INFO] 2023-01-03 10:38:05,726 - Test fold mean accuracy: 0.9677661169415293

[INFO] 2023-01-03 10:38:05,726 - Evaluating testing fold #4

[INFO] 2023-01-03 10:38:05,729 - Calibrating probabilities

[INFO] 2023-01-03 10:38:07,683 - Test fold mean accuracy: 0.9697651174412794

[INFO] 2023-01-03 10:38:07,683 - Evaluating testing fold #5

[INFO] 2023-01-03 10:38:07,686 - Calibrating probabilities

[INFO] 2023-01-03 10:38:09,678 - Test fold mean accuracy: 0.9672663668165917

[INFO] 2023-01-03 10:38:09,678 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:38:09,678 - Mean accuracy on test instances (iteration #1): 0.9688

[INFO] 2023-01-03 10:38:09,679 - Assessing performance of classifier 'logistic\_regression'

[INFO] 2023-01-03 10:38:09,680 - Estimating instance performance...

[INFO] 2023-01-03 10:38:09,681 - Evaluating testing fold #1

[INFO] 2023-01-03 10:38:09,685 - Calibrating probabilities

[INFO] 2023-01-03 10:38:09,783 - Test fold mean accuracy: 0.9640269797651762

[INFO] 2023-01-03 10:38:09,784 - Evaluating testing fold #2

[INFO] 2023-01-03 10:38:09,790 - Calibrating probabilities

[INFO] 2023-01-03 10:38:09,863 - Test fold mean accuracy: 0.9675162418790605

[INFO] 2023-01-03 10:38:09,863 - Evaluating testing fold #3

[INFO] 2023-01-03 10:38:09,866 - Calibrating probabilities

[INFO] 2023-01-03 10:38:09,922 - Test fold mean accuracy: 0.9582708645677162

[INFO] 2023-01-03 10:38:09,922 - Evaluating testing fold #4

[INFO] 2023-01-03 10:38:09,926 - Calibrating probabilities

[INFO] 2023-01-03 10:38:10,010 - Test fold mean accuracy: 0.9685157421289355

[INFO] 2023-01-03 10:38:10,010 - Evaluating testing fold #5

[INFO] 2023-01-03 10:38:10,013 - Calibrating probabilities

[INFO] 2023-01-03 10:38:10,093 - Test fold mean accuracy: 0.967016491754123

[INFO] 2023-01-03 10:38:10,093 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:38:10,094 - Mean accuracy on test instances (iteration #1): 0.9651

[INFO] 2023-01-03 10:38:10,094 - Assessing performance of classifier 'mlp'

[INFO] 2023-01-03 10:38:10,094 - Estimating instance performance...

[INFO] 2023-01-03 10:38:10,095 - Evaluating testing fold #1

[INFO] 2023-01-03 10:38:10,099 - Calibrating probabilities

[INFO] 2023-01-03 10:38:22,277 - Test fold mean accuracy: 0.9640269797651762

[INFO] 2023-01-03 10:38:22,277 - Evaluating testing fold #2

[INFO] 2023-01-03 10:38:22,282 - Calibrating probabilities

[INFO] 2023-01-03 10:38:34,037 - Test fold mean accuracy: 0.960519740129935

[INFO] 2023-01-03 10:38:34,038 - Evaluating testing fold #3

[INFO] 2023-01-03 10:38:34,041 - Calibrating probabilities

[INFO] 2023-01-03 10:38:46,209 - Test fold mean accuracy: 0.9617691154422788

[INFO] 2023-01-03 10:38:46,210 - Evaluating testing fold #4

[INFO] 2023-01-03 10:38:46,220 - Calibrating probabilities

[INFO] 2023-01-03 10:38:58,289 - Test fold mean accuracy: 0.9662668665667167

[INFO] 2023-01-03 10:38:58,289 - Evaluating testing fold #5

[INFO] 2023-01-03 10:38:58,293 - Calibrating probabilities

[INFO] 2023-01-03 10:39:10,146 - Test fold mean accuracy: 0.9630184907546226

[INFO] 2023-01-03 10:39:10,146 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:39:10,146 - Mean accuracy on test instances (iteration #1): 0.9631

[INFO] 2023-01-03 10:39:10,147 - Assessing performance of classifier 'random\_forest'

[INFO] 2023-01-03 10:39:10,147 - Estimating instance performance...

[INFO] 2023-01-03 10:39:10,148 - Evaluating testing fold #1

[INFO] 2023-01-03 10:39:10,152 - Calibrating probabilities

[INFO] 2023-01-03 10:39:10,994 - Test fold mean accuracy: 0.9617786660004997

[INFO] 2023-01-03 10:39:10,994 - Evaluating testing fold #2

[INFO] 2023-01-03 10:39:10,998 - Calibrating probabilities

[INFO] 2023-01-03 10:39:11,959 - Test fold mean accuracy: 0.9632683658170914

[INFO] 2023-01-03 10:39:11,959 - Evaluating testing fold #3

[INFO] 2023-01-03 10:39:11,981 - Calibrating probabilities

[INFO] 2023-01-03 10:39:12,786 - Test fold mean accuracy: 0.9665167416291854

[INFO] 2023-01-03 10:39:12,786 - Evaluating testing fold #4

[INFO] 2023-01-03 10:39:12,793 - Calibrating probabilities

[INFO] 2023-01-03 10:39:13,545 - Test fold mean accuracy: 0.9642678660669665

[INFO] 2023-01-03 10:39:13,545 - Evaluating testing fold #5

[INFO] 2023-01-03 10:39:13,552 - Calibrating probabilities

[INFO] 2023-01-03 10:39:14,335 - Test fold mean accuracy: 0.9622688655672164

[INFO] 2023-01-03 10:39:14,335 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:39:14,335 - Mean accuracy on test instances (iteration #1): 0.9636

[INFO] 2023-01-03 10:39:14,336 - Assessing performance of classifier 'svc\_linear'

[INFO] 2023-01-03 10:39:14,336 - Estimating instance performance...

[INFO] 2023-01-03 10:39:14,338 - Evaluating testing fold #1

[INFO] 2023-01-03 10:39:14,341 - Calibrating probabilities

[INFO] 2023-01-03 10:39:16,175 - Test fold mean accuracy: 0.9697726704971271

[INFO] 2023-01-03 10:39:16,176 - Evaluating testing fold #2

[INFO] 2023-01-03 10:39:16,179 - Calibrating probabilities

[INFO] 2023-01-03 10:39:18,010 - Test fold mean accuracy: 0.9677661169415293

[INFO] 2023-01-03 10:39:18,010 - Evaluating testing fold #3

[INFO] 2023-01-03 10:39:18,013 - Calibrating probabilities

[INFO] 2023-01-03 10:39:19,874 - Test fold mean accuracy: 0.9667666166916542

[INFO] 2023-01-03 10:39:19,874 - Evaluating testing fold #4

[INFO] 2023-01-03 10:39:19,877 - Calibrating probabilities

[INFO] 2023-01-03 10:39:21,750 - Test fold mean accuracy: 0.9692653673163418

[INFO] 2023-01-03 10:39:21,750 - Evaluating testing fold #5

[INFO] 2023-01-03 10:39:21,753 - Calibrating probabilities

[INFO] 2023-01-03 10:39:23,626 - Test fold mean accuracy: 0.9665167416291854

[INFO] 2023-01-03 10:39:23,626 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:39:23,627 - Mean accuracy on test instances (iteration #1): 0.968

[INFO] 2023-01-03 10:39:23,627 - Assessing performance of classifier 'svc\_rbf'

[INFO] 2023-01-03 10:39:23,629 - Estimating instance performance...

[INFO] 2023-01-03 10:39:23,630 - Evaluating testing fold #1

[INFO] 2023-01-03 10:39:23,634 - Calibrating probabilities

[INFO] 2023-01-03 10:39:31,572 - Test fold mean accuracy: 0.9712715463402448

[INFO] 2023-01-03 10:39:31,572 - Evaluating testing fold #2

[INFO] 2023-01-03 10:39:31,575 - Calibrating probabilities

[INFO] 2023-01-03 10:39:39,678 - Test fold mean accuracy: 0.9685157421289355

[INFO] 2023-01-03 10:39:39,678 - Evaluating testing fold #3

[INFO] 2023-01-03 10:39:39,681 - Calibrating probabilities

[INFO] 2023-01-03 10:39:47,665 - Test fold mean accuracy: 0.9690154922538731

[INFO] 2023-01-03 10:39:47,665 - Evaluating testing fold #4

[INFO] 2023-01-03 10:39:47,668 - Calibrating probabilities

[INFO] 2023-01-03 10:39:55,757 - Test fold mean accuracy: 0.9702648675662169

[INFO] 2023-01-03 10:39:55,757 - Evaluating testing fold #5

[INFO] 2023-01-03 10:39:55,760 - Calibrating probabilities

[INFO] 2023-01-03 10:40:03,711 - Test fold mean accuracy: 0.9675162418790605

[INFO] 2023-01-03 10:40:03,712 - Iteration 1/1 completed.

[INFO] 2023-01-03 10:40:03,712 - Mean accuracy on test instances (iteration #1): 0.9693

[INFO] 2023-01-03 10:40:04,297 - Feature selection on

[INFO] 2023-01-03 10:40:04,674 - Applying varicance threshold

[INFO] 2023-01-03 10:40:04,682 - Removed features: []

[INFO] 2023-01-03 10:40:04,682 - Applying correlation threshold

[INFO] 2023-01-03 10:40:04,686 - Removed features: ['feature\_CLD']

[INFO] 2023-01-03 10:40:04,686 - Applying main filtering method: NCA

[INFO] 2023-01-03 10:40:31,197 - Selected features: ['feature\_N2', 'feature\_kDN', 'feature\_DCP', 'feature\_N1', 'feature\_CL', 'feature\_TD\_P', 'feature\_LSR']

[INFO] 2023-01-03 10:40:31,498 - Running Instance Space Analysis with 'python' engine.

[INFO] 2023-01-03 10:40:31,505 - Adding gaussian noise to the metadata for numerical stability.

[INFO] 2023-01-03 10:40:31,553 - Calculating the binary measure of performance

[INFO] 2023-01-03 10:40:31,557 - An algorithm is good if its performace is less than 0.6926

[INFO] 2023-01-03 10:40:31,559 - For 0.0% of the instances there is more than one best algorithm. Random selection is used to break ties.

[INFO] 2023-01-03 10:40:31,559 - Auto pre-processing.

[INFO] 2023-01-03 10:40:31,559 - Removing extreme outliers from the feature values.

[INFO] 2023-01-03 10:40:31,571 - Auto-normalizing the data using Box-Cox and Z transformations.

/Users/aclorena/opt/anaconda3/envs/pyhard/lib/python3.10/site-packages/numpy/core/\_methods.py:236: RuntimeWarning: overflow encountered in multiply

x = um.multiply(x, x, out=x)

/Users/aclorena/opt/anaconda3/envs/pyhard/lib/python3.10/site-packages/numpy/core/\_methods.py:247: RuntimeWarning: overflow encountered in reduce

ret = umr\_sum(x, axis, dtype, out, keepdims=keepdims, where=where)

[INFO] 2023-01-03 10:40:31,827 - Calling PILOT to find the optimal projection.

[INFO] 2023-01-03 10:40:31,829 - PILOT is solving numerically the projection problem.

[INFO] 2023-01-03 10:41:03,747 - PILOT has completed trial 1

[INFO] 2023-01-03 10:41:33,908 - PILOT has completed trial 2

[INFO] 2023-01-03 10:42:06,815 - PILOT has completed trial 3

[INFO] 2023-01-03 10:42:35,410 - PILOT has completed trial 4

[INFO] 2023-01-03 10:43:04,041 - PILOT has completed trial 5

[INFO] 2023-01-03 10:43:04,080 - PILOT has completed.

[INFO] 2023-01-03 10:43:04,428 - Adjusting the IS rotation.

[INFO] 2023-01-03 10:43:04,434 - The space was rotated by 82.2 degrees.

[INFO] 2023-01-03 10:43:04,434 - Calling TRACE to perform the footprint analysis.

[INFO] 2023-01-03 10:43:04,438 - TRACE is calculating the space area and density.

[INFO] 2023-01-03 10:43:08,697 - TRACE is calculating the algorithm footprints.

[WARNING] 2023-01-03 10:43:08,697 - Some log messages are temporarily disabled in parallel mode. This functionality will be added in future versions

[INFO] 2023-01-03 10:43:08,757 - Calculating footprints...

[INFO] 2023-01-03 10:43:20,605 - TRACE is detecting and removing contradictory sections of the footprints.

[INFO] 2023-01-03 10:43:21,956 - TRACE is calculating the beta-footprint.

[INFO] 2023-01-03 10:43:22,154 - TRACE is preparing the summary table.

[INFO] 2023-01-03 10:43:22,156 - TRACE has completed.

[INFO] 2023-01-03 10:43:22,157 - Calculating instance easiness footprint area

[INFO] 2023-01-03 10:43:22,157 - An instance is easy if its IH-value <= 0.4

[INFO] 2023-01-03 10:43:27,315 - Total elapsed time: 1h0m53s

[INFO] 2023-01-03 10:43:27,315 - Instance Hardness analysis finished.