/Users/steliosrammos/Documents/Education/Maastricht/DKE-Year3/BachelorThesis/venv\_thesis/bin/python3 /Users/steliosrammos/Documents/Education/Maastricht/DKE-Year3/BachelorThesis/bachelor\_thesis/src/models/BiasCorrectionFrameworkEvalution.py

**FOLD 1**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 576

Initial ratio: 0.24081020255063765

Initial ROC AUC: 0.6111668859011504

Good positive predictions: 199

Good negative predictions: 47

Oversampled 47 examples by factor of 4.

Number of good predictions: 246

Improved!

Updated ROC AUC: 0.6541026364886096

Updated ratio: 0.2402088772845953

Remaining unlabeled: 330

Good positive predictions: 22

Good negative predictions: 4

Oversampled 4 examples by factor of 4.

Number of good predictions: 26

Did not improve...

ROC AUC: 0.6515459378602543

Final ROC AUC 0.6541026364886096

Test ROC AUC (not corrected): 0.46631417363124683

Test ROC AUC (corrected): 0.47961794303257715

**FOLD 2**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.24642049736247174

Initial ROC AUC: 0.5775254008601048

Good positive predictions: 221

Good negative predictions: 53

Oversampled 53 examples by factor of 4.

Number of good predictions: 274

Improved!

Updated ROC AUC: 0.6370459173501936

Updated ratio: 0.2454780361757106

Remaining unlabeled: 303

Good positive predictions: 32

Good negative predictions: 7

Oversampled 7 examples by factor of 4.

Number of good predictions: 39

Improved!

Updated ROC AUC: 0.6461929860161768

Updated ratio: 0.2449367088607595

Remaining unlabeled: 264

Good positive predictions: 4

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 5

Did not improve...

ROC AUC: 0.6428263485418091

Final ROC AUC 0.6461929860161768

Test ROC AUC (not corrected): 0.695973154362416

Test ROC AUC (corrected): 0.6911792905081496

**FOLD 3**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.23802395209580837

Initial ROC AUC: 0.5793181497315749

Good positive predictions: 203

Good negative predictions: 47

Oversampled 47 examples by factor of 4.

Number of good predictions: 250

Improved!

Updated ROC AUC: 0.6447312197501457

Updated ratio: 0.23716699155295645

Remaining unlabeled: 327

Good positive predictions: 34

Good negative predictions: 7

Oversampled 7 examples by factor of 4.

Number of good predictions: 41

Did not improve...

ROC AUC: 0.6383147691915754

Final ROC AUC 0.6447312197501457

Test ROC AUC (not corrected): 0.614935064935065

Test ROC AUC (corrected): 0.6059253246753247

**FOLD 4**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.24642049736247174

Initial ROC AUC: 0.6018923373775347

Good positive predictions: 193

Good negative predictions: 46

Oversampled 46 examples by factor of 4.

Number of good predictions: 239

Improved!

Updated ROC AUC: 0.6296935520619731

Updated ratio: 0.24539473684210528

Remaining unlabeled: 338

Good positive predictions: 31

Good negative predictions: 6

Oversampled 6 examples by factor of 4.

Number of good predictions: 37

Improved!

Updated ROC AUC: 0.6298388015493279

Updated ratio: 0.2443584784010316

Remaining unlabeled: 301

Good positive predictions: 4

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 5

Improved!

Updated ROC AUC: 0.6337948920596947

Updated ratio: 0.24437299035369775

Remaining unlabeled: 296

Good positive predictions: 5

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 6

Did not improve...

ROC AUC: 0.6203357292378674

Final ROC AUC 0.6337948920596947

Test ROC AUC (not corrected): 0.5894534995206135

Test ROC AUC (corrected): 0.5914669223394056

**FOLD 5**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.25303030303030305

Initial ROC AUC: 0.5642173742775347

Good positive predictions: 219

Good negative predictions: 54

Oversampled 54 examples by factor of 4.

Number of good predictions: 273

Improved!

Updated ROC AUC: 0.6263649192459353

Updated ratio: 0.2521117608836907

Remaining unlabeled: 304

Good positive predictions: 13

Good negative predictions: 2

Oversampled 2 examples by factor of 4.

Number of good predictions: 15

Did not improve...

ROC AUC: 0.6258743855668989

Final ROC AUC 0.6263649192459353

Test ROC AUC (not corrected): 0.6279761904761906

Test ROC AUC (corrected): 0.6074862637362638

**FOLD 6**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.2473604826546003

Initial ROC AUC: 0.6020404375910505

Good positive predictions: 210

Good negative predictions: 51

Oversampled 51 examples by factor of 4.

Number of good predictions: 261

Improved!

Updated ROC AUC: 0.6390801437564296

Updated ratio: 0.24674479166666666

Remaining unlabeled: 316

Good positive predictions: 36

Good negative predictions: 8

Oversampled 8 examples by factor of 4.

Number of good predictions: 44

Improved!

Updated ROC AUC: 0.6405480088176709

Updated ratio: 0.24618320610687022

Remaining unlabeled: 272

Good positive predictions: 15

Good negative predictions: 2

Oversampled 2 examples by factor of 4.

Number of good predictions: 17

Did not improve...

ROC AUC: 0.6367257567990224

Final ROC AUC 0.6405480088176709

Test ROC AUC (not corrected): 0.542843137254902

Test ROC AUC (corrected): 0.572843137254902

**FOLD 7**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.24360902255639097

Initial ROC AUC: 0.5911558014354068

Good positive predictions: 224

Good negative predictions: 53

Oversampled 53 examples by factor of 4.

Number of good predictions: 277

Improved!

Updated ROC AUC: 0.6345629699248121

Updated ratio: 0.2425997425997426

Remaining unlabeled: 300

Good positive predictions: 38

Good negative predictions: 8

Oversampled 8 examples by factor of 4.

Number of good predictions: 46

Did not improve...

ROC AUC: 0.6237778394850764

Final ROC AUC 0.6345629699248121

Test ROC AUC (not corrected): 0.6030100937274694

Test ROC AUC (corrected): 0.594718817591925

**FOLD 8**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.23709798055347794

Initial ROC AUC: 0.6024097985318979

Good positive predictions: 212

Good negative predictions: 49

Oversampled 49 examples by factor of 4.

Number of good predictions: 261

Improved!

Updated ROC AUC: 0.6323852066673664

Updated ratio: 0.23628147191736604

Remaining unlabeled: 316

Good positive predictions: 33

Good negative predictions: 7

Oversampled 7 examples by factor of 4.

Number of good predictions: 40

Improved!

Updated ROC AUC: 0.6331104423990285

Updated ratio: 0.23577749683944374

Remaining unlabeled: 276

Good positive predictions: 15

Good negative predictions: 2

Oversampled 2 examples by factor of 4.

Number of good predictions: 17

Improved!

Updated ROC AUC: 0.6374634829732009

Updated ratio: 0.234815278647464

Remaining unlabeled: 259

Good positive predictions: 3

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 4

Did not improve...

ROC AUC: 0.6358184887697698

Final ROC AUC 0.6374634829732009

Test ROC AUC (not corrected): 0.6032773780975219

Test ROC AUC (corrected): 0.5836930455635493

**FOLD 9**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.2537878787878788

Initial ROC AUC: 0.5809782315129908

Good positive predictions: 217

Good negative predictions: 54

Oversampled 54 examples by factor of 4.

Number of good predictions: 271

Improved!

Updated ROC AUC: 0.6465507346189165

Updated ratio: 0.2530904359141184

Remaining unlabeled: 306

Good positive predictions: 20

Good negative predictions: 4

Oversampled 4 examples by factor of 4.

Number of good predictions: 24

Improved!

Updated ROC AUC: 0.6585811321773888

Updated ratio: 0.2524084778420039

Remaining unlabeled: 282

Good positive predictions: 4

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 5

Did not improve...

ROC AUC: 0.6519439042834765

Final ROC AUC 0.6585811321773888

Test ROC AUC (not corrected): 0.5966286799620133

Test ROC AUC (corrected): 0.647198480531814

**FOLD 10**

Start computing weights W

Start conformal improvement.

Initial unlabeled: 577

Initial ratio: 0.24623493975903615

Initial ROC AUC: 0.5739734634882662

Good positive predictions: 222

Good negative predictions: 53

Oversampled 53 examples by factor of 4.

Number of good predictions: 275

Improved!

Updated ROC AUC: 0.6269840973171564

Updated ratio: 0.24516129032258063

Remaining unlabeled: 302

Good positive predictions: 26

Good negative predictions: 5

Oversampled 5 examples by factor of 4.

Number of good predictions: 31

Improved!

Updated ROC AUC: 0.62931832421964

Updated ratio: 0.24428934010152284

Remaining unlabeled: 271

Good positive predictions: 11

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 12

Improved!

Updated ROC AUC: 0.6334865929027113

Updated ratio: 0.2432262129804663

Remaining unlabeled: 259

Good positive predictions: 10

Good negative predictions: 1

Oversampled 1 examples by factor of 4.

Number of good predictions: 11

Did not improve...

ROC AUC: 0.6241326861187059

Final ROC AUC 0.6334865929027113

Test ROC AUC (not corrected): 0.6383204633204633

Test ROC AUC (corrected): 0.5692084942084941

**FINAL AVERAGES**

Final mean test ROC AUC (uncorrected): 0.59787318352879

Final mean test ROC AUC (corrected): 0.5943337719442405

Process finished with exit code 0