

## Paired T-test Results:

Proposed Solution F1 Scores:

[0.7641693616001917, 0.7875404283671799, 0.8053072161346584, 0.7853654011793547, 0.7560132863332685, 0.7554312047399605, 0.7931983588644002, 0.7764961440067722, 0.7376392434808012, 0.7932829888712242, 0.7659363034486291, 0.8049884929811328, 0.7485085678019886, 0.7690072898799314, 0.7513550581522932, 0.7442999267048993, 0.7639334388718977, 0.7835081585081585, 0.7782083364718551, 0.7473765885043575]

Baseline Tool F1 Scores:

[0.6158608004977947, 0.6281912231832014, 0.6581390154560887, 0.6253740225818717, 0.5910047599002688, 0.5871988561197384, 0.6545792654579266, 0.6053267022908841, 0.6390182610152454, 0.6190074743612028, 0.6211758100439881, 0.6601061396481627, 0.6354917146009404, 0.6253199423679973, 0.6148364447652482, 0.5791322079981873, 0.6257470204555544, 0.6212098418747701, 0.6133403867327277, 0.5985581747171151]

Proposed Solution ROC AUC Scores:

[0.8472438897555903, 0.8506351146660998, 0.8833356410966492, 0.8575663430420711, 0.8334288485275965, 0.8334256438659652, 0.8487509334875093, 0.8530331828621207, 0.7978737828176999, 0.8534663865546219, 0.8466401687633456, 0.8547129065040652, 0.8238819058754752, 0.8435133267784539, 0.8403538031702589, 0.8161487018095988, 0.8380355276907001, 0.8668383781572757, 0.8456542372881356, 0.835277609223301]

Baseline Tool ROC AUC Scores:

[0.7701278639380871, 0.7694321171374665, 0.807574079202437, 0.7834433656957929, 0.7528874977958032, 0.742841318194406, 0.78693599286936, 0.7419220717510098, 0.7686798964624677, 0.7530906593406594, 0.7745748758714723, 0.7958968495934959, 0.7826326698732429, 0.77539794318514, 0.7679396168320219, 0.7195712037765538, 0.7872119562228456, 0.7613188976377951, 0.7548406779661018, 0.7637894417475728]

## Unpaired T-test Results:

Proposed Solution F1 Scores:

[0.7916658569425743, 0.7813277284222644, 0.7470373063796987, 0.7716140177063089, 0.776869567116586, 0.7819416874773217, 0.7691720375752981, 0.7864996136130942, 0.7710387140656015, 0.7562712645547829, 0.7880403774412992, 0.7993314882408782, 0.7977497504763633, 0.7691720375752981, 0.7956632113391158, 0.767108082071633, 0.7598279334609742, 0.7906452521837137, 0.7830707102242341, 0.8011183992579342]

Baseline Tool F1 Scores:

[0.6097398634352147, 0.6318598711757288, 0.5963954651917177, 0.6391218469708253, 0.6465090989414304, 0.6240469561809777, 0.6179059309031268, 0.6217792488151708, 0.6024493450293644, 0.608370229812355, 0.6467264158882438, 0.6311771452046353, 0.6098888433562135, 0.6393266413550389, 0.6271268676141393, 0.6721394996855714, 0.6484912606661162, 0.6329904695490469, 0.6179981874586078, 0.5892276763276931]

Proposed Solution ROC AUC Scores:

[0.8555712045919587, 0.8498093578769285, 0.8202397531471014, 0.8635676689770182, 0.8369834280056282, 0.8477013712021817, 0.8578431372549019, 0.8500535045478866, 0.8362489226459815, 0.8127572815533981, 0.8778275179203971, 0.8852996254681647, 0.8483676321138212, 0.8407119741100323, 0.8601999848496326, 0.8554619235212229, 0.861378063833539, 0.8495221879042263, 0.8538742359067241, 0.8483380172497335]

Baseline Tool ROC AUC Scores:

[0.7678274716145113, 0.7827456086737, 0.7510737241195462, 0.7925016949152542, 0.7666164252628483, 0.7611676543275491, 0.7679708400214018, 0.7636941056910569, 0.7608512431521282, 0.7613448904581368, 0.776537655614446, 0.7644336569579289, 0.7793861899874558, 0.7865088343029519, 0.7731299212598426, 0.8038703315666216, 0.7807994171183148, 0.7610562865497076, 0.7872776319626713, 0.7471891442813625]