

GRAPHITO SOFTWARE



OUTPUT PRODUCED BY

GROUP NO : 5

| Sample size | AUC | | | |
|--------------------|--------------------|--------------------|--------------------|-------------------|
| | 134.0 232.0 148.0 | 182.0 40.0 45.0 | 119.0 123.0 212.0 | 103.0 103.0 103.0 |
| 0.0 | - | - | - | - |
| 1.9682059046177138 | - | - | - | - |
| 3.9364118092354277 | 15.309126594700688 | 16.584887144259078 | 35.62315996074583 | - |
| 5.904617713853142 | 15.701668302257115 | 19.43081452404318 | 35.91756624141315 | - |
| 7.872823618470855 | 16.290480863591757 | 22.178606476938175 | 36.113837095191364 | - |
| 9.841029523088569 | 16.8792934249264 | 24.23945044160942 | 36.50637880274779 | - |
| 11.809235427706284 | 16.977428851815507 | 26.7909715407262 | 36.99705593719332 | - |
| 13.777441332323997 | 17.664376840039253 | 28.851815505397447 | 37.389597644749756 | - |
| 15.74564723694171 | 17.86064769381747 | 31.50147203140334 | 37.78213935230618 | - |
| 17.713853141559426 | 17.86064769381747 | 32.09028459273798 | 37.78213935230618 | - |
| 19.682059046177137 | 18.15505397448479 | - | 38.17468105986261 | - |
| 21.650264950794853 | 18.15505397448479 | 31.69774288518155 | 38.17468105986261 | - |
| 23.618470855412568 | 18.743866535819432 | 31.69774288518155 | 38.56722276741904 | - |
| 25.58667676003028 | 18.743866535819432 | 31.69774288518155 | 38.76349362119725 | - |
| 27.554882664647995 | 18.743866535819432 | 31.40333660451423 | 38.66535819430815 | - |
| 29.523088569265706 | 19.038272816486753 | 31.207065750736017 | 38.959764474975465 | - |
| 31.49129447388342 | 19.136408243375858 | 31.207065750736017 | 38.959764474975465 | - |
| 33.45950037850113 | 19.528949950932287 | 31.207065750736017 | 39.74484789008832 | - |
| 35.42770628311885 | 20.01962708537782 | 30.912659470068697 | 39.54857703631011 | - |
| 37.39591218773656 | 20.215897939156037 | 30.912659470068697 | 39.54857703631011 | - |
| 39.364118092354275 | 20.70657507360157 | 30.42198233562316 | - | - |
| 41.33232399697199 | - | - | 39.84298331697743 | - |
| 43.300529901589705 | 21.39352306182532 | 30.029440628066734 | 39.84298331697743 | - |
| 45.26873580620742 | 21.786064769381746 | 29.636898920510305 | 39.84298331697743 | - |
| 47.236941710825135 | 21.982335623159962 | 29.636898920510305 | 40.333660451422965 | - |
| 49.20514761544285 | 22.276741903827283 | 29.342492639842984 | 40.333660451422965 | - |
| 51.17335352006056 | 22.96368989205103 | 29.244357212953876 | 40.72620215897939 | - |
| 53.14155942467828 | 23.061825318940137 | 28.851815505397447 | 40.62806673209028 | - |
| 55.10976532929599 | 23.55250245338567 | 28.655544651619234 | 40.62806673209028 | - |
| 57.0779712339137 | 23.9450441609421 | 28.45927379784102 | 40.92247301275761 | - |
| 59.04617713853141 | 24.63199214916585 | - | 41.020608439646715 | - |
| 61.01438304314913 | 25.024533856722275 | 28.066732090284592 | 41.11874386653582 | - |
| 62.98258894776684 | 25.122669283611383 | 27.674190382728163 | 41.020608439646715 | - |
| 64.95079485238456 | 25.515210991167812 | - | 41.41315014720314 | - |
| 66.91900075700227 | 25.907752698724238 | 27.47791952894995 | 41.41315014720314 | - |
| 68.88720666161998 | 27.47791952894995 | - | 41.51128557409225 | - |
| 70.8554125662377 | 28.45927379784102 | - | 41.11874386653582 | - |
| 72.82361847085541 | 30.323846908734055 | 27.47791952894995 | 41.11874386653582 | - |
| 74.79182437547313 | 30.81452404317959 | 27.379784102060842 | 41.11874386653582 | - |
| 76.76003028009085 | 32.482826300294406 | 1.0794896957801767 | 41.020608439646715 | - |
| 78.72823618470855 | 33.95485770363101 | 1.2757605495583906 | 40.62806673209028 | - |
| 80.69644208932627 | 35.2306182531894 | 27.674190382728163 | 40.62806673209028 | - |
| 82.66464799394399 | 36.113837095191364 | 27.674190382728163 | 40.62806673209028 | - |
| 84.63285389856169 | 37.78213935230618 | 27.674190382728163 | 40.52993130520118 | - |
| 86.60105980317941 | 9.224730127576056 | 27.674190382728163 | 40.23552502453386 | - |
| 88.56926570779713 | 40.333660451422965 | 27.674190382728163 | 8.930323846908735 | - |
| 90.53747161241483 | 41.41315014720314 | - | 40.13738959764475 | - |
| 92.50567751703255 | 42.98331697742885 | - | 39.84298331697743 | - |
| 94.47388342165027 | 44.35721295387635 | 3.336604514229637 | 2.355250245338567 | - |
| 96.44208932626798 | 45.240431795878315 | 8.635917566241414 | 1.6683022571148185 | - |
| 98.4102952308857 | 46.712463199214916 | 28.263002944062805 | 39.54857703631011 | - |
| | | | | |

Figure: versus

| Recall | Precisio | | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 237.0 114.0 158.0 | 218.0 142.0 90.0 | 50.0 48.0 167.0 | 118.0 222.0 169.0 | 157.0 20.0 171.0 | 36.0 95.0 110.0 |
| 0.0 | 9.448818897637794 | 25.721784776902886 | - | - | - | - |
| 1.9625334522747546 | 9.448818897637794 | 25.590551181102363 | 63.123359580052494 | 89.89501312335958 | 68.50393700787401 | 90.0262467191601 |
| 3.9250669045495092 | 79.79002624671917 | 26.509186351706038 | 63.51706036745407 | 90.0262467191601 | 68.50393700787401 | - |
| 5.887600356824264 | 79.79002624671917 | 26.64041994750656 | 63.51706036745407 | 90.0262467191601 | 68.50393700787401 | - |
| 7.8501338090990185 | 9.84251968503937 | 27.034120734908136 | 58.79265091863517 | 30.05249343832021 | 86.48293963254594 | 63.38582677165354 |
| 9.812667261373774 | 9.711286089238845 | 57.21784776902887 | 22.178477690288712 | 26.246719160104988 | 22.57217847769029 | 58.79265091863517 |
| 11.775200713648529 | 85.43307086614173 | 57.21784776902887 | 22.834645669291337 | 25.06561679790026 | 96.19422572178478 | 63.123359580052494 |
| 13.737734165923284 | 9.973753280839896 | 58.79265091863517 | 22.834645669291337 | 23.62204724409449 | 59.58005249343832 | 69.94750656167979 |
| 15.700267618198037 | 9.973753280839896 | 29.00262467191601 | 23.62204724409449 | 22.703412073490814 | 8.923884514435695 | 58.661417322834644 |
| 17.662801070472792 | 8.661417322834646 | 63.91076115485564 | 63.25459317585302 | 68.37270341207349 | 9.05511811023622 | 62.729658792650916 |
| 19.625334522747547 | 8.661417322834646 | 62.46719160104987 | 69.16010498687665 | 63.77952755905512 | 9.186351706036746 | 69.29133858267717 |
| 21.587867975022302 | 8.661417322834646 | 63.123359580052494 | - | - | 9.186351706036746 | - |
| 23.550401427297057 | 8.661417322834646 | - | - | 20.20997375328084 | 9.05511811023622 | - |
| 25.512934879571812 | 10.10498687664042 | 9.973753280839896 | - | 20.20997375328084 | 9.186351706036746 | - |
| 27.475468331846567 | 8.398950131233596 | - | - | 19.68503937007874 | 9.58005249343832 | - |
| 29.43800178412132 | 8.923884514435695 | 9.58005249343832 | - | 19.68503937007874 | 9.711286089238845 | - |
| 31.400535236396074 | 10.498687664041995 | - | - | 19.68503937007874 | 8.136482939632545 | - |
| 33.36306868867083 | 10.761154855643044 | 9.186351706036746 | 8.398950131233596 | 19.553805774278214 | 9.711286089238845 | - |
| 35.325602140945584 | 10.761154855643044 | - | 8.136482939632545 | 20.20997375328084 | 9.84251968503937 | - |
| 37.28813559322034 | 8.79265091863517 | - | 8.136482939632545 | 20.20997375328084 | 8.661417322834646 | - |
| 39.250669045495094 | 10.10498687664042 | 10.236220472440944 | - | 10.62992125984252 | 8.79265091863517 | - |
| 41.21320249776985 | 11.417322834645669 | 10.236220472440944 | - | - | 8.79265091863517 | - |
| 43.175735950044604 | 10.36745406824147 | - | 8.923884514435695 | - | 9.317585301837271 | - |
| 45.13826940231936 | 10.10498687664042 | - | 9.05511811023622 | - | 9.317585301837271 | - |
| 47.100802854594114 | 13.385826771653543 | 37.13910761154855 | 9.05511811023622 | - | 9.58005249343832 | - |
| 49.06333630686887 | 11.286089238845145 | 37.53280839895013 | 9.448818897637794 | - | 9.973753280839896 | - |
| 51.025869759143625 | 10.761154855643044 | 37.79527559055118 | 9.58005249343832 | - | 10.10498687664042 | - |
| 52.98840321141838 | 14.173228346456693 | 38.4514435695538 | 9.448818897637794 | - | 10.62992125984252 | - |
| 54.950936663693135 | 15.223097112860893 | 39.37007874015748 | 10.10498687664042 | - | 10.761154855643044 | - |
| 56.91347011596788 | 12.073490813648293 | 40.026246719160106 | 10.36745406824147 | - | 11.286089238845145 | - |
| 58.87600356824264 | 12.073490813648293 | 40.55118110236221 | 10.89238845144357 | - | 11.811023622047244 | - |
| 60.83853702051739 | 12.860892388451443 | 41.338582677165356 | 11.811023622047244 | - | 12.073490813648293 | 10.761154855643044 |
| 62.80107047279215 | 16.929133858267715 | 41.732283464566926 | 12.46719160104987 | - | 12.860892388451443 | 11.811023622047244 |
| 64.7636039250669 | 18.37270341207349 | 43.044619422572175 | 12.204724409448819 | - | 13.517060367454068 | - |
| 66.72613737734166 | 19.291338582677167 | 43.044619422572175 | 12.860892388451443 | - | 14.173228346456693 | - |
| 68.68867082961641 | 15.485564304461942 | 44.356955380577425 | 14.435695538057743 | - | 14.960629921259843 | 14.041994750656167 |
| 70.65120428189117 | 20.866141732283463 | 45.01312335958005 | 15.354330708661417 | 35.826771653543304 | 15.616797900262467 | 14.173228346456693 |
| 72.61373773416592 | 17.58530183727034 | 46.06299212598425 | 16.53543307086614 | 37.53280839895013 | 16.79790026246719 | 15.091863517060368 |
| 74.57627118644068 | 18.89763779527559 | 47.112860892388454 | 16.929133858267715 | 38.976377952755904 | 17.716535433070867 | 16.010498687664043 |
| 76.53880463871543 | 25.19685039370079 | 47.9002624671916 | 18.241469816272964 | 17.191601049868765 | 19.16010498687664 | 17.322834645669293 |
| 78.50133809099019 | 22.04724409448819 | 50.26246719160105 | 19.816272965879264 | 42.51968503937008 | 20.99737532808399 | 18.766404199475065 |
| 80.46387154326494 | 28.346456692913385 | 50.656167979002625 | 21.128608923884514 | 44.61942257217848 | 22.703412073490814 | 20.20997375328084 |
| 82.4264049955397 | 25.721784776902886 | 51.83727034120735 | 23.228346456692915 | 46.71916010498688 | 24.146981627296586 | 22.04724409448819 |
| 84.38893844781445 | 33.46456692913386 | 53.018372703412076 | 26.11548556430446 | 49.08136482939633 | 27.034120734908136 | 24.146981627296586 |
| 86.35147190008921 | 34.90813648293963 | 55.118110236220474 | 27.69028871391076 | 26.246719160104988 | 29.52755905511811 | 26.771653543307085 |
| 88.31400535236396 | 34.120734908136484 | 56.69291338582677 | 30.31496062992126 | 53.6745406824147 | 32.28346456692913 | 29.52755905511811 |
| 90.27653880463872 | 37.92650918635171 | 58.79265091863517 | 34.645669291338585 | 56.43044619422572 | 36.351706036745405 | 32.93963254593176 |
| 92.23907225691347 | 46.3254593175853 | 61.67979002624672 | 39.23884514435696 | - | 40.94488188976378 | 37.92650918635171 |
| 94.20160570918823 | 47.506561679790025 | 63.38582677165354 | 45.40682414698163 | 43.175853018372706 | 46.71916010498688 | 43.56955380577428 |
| 96.16413916146298 | 56.43044619422572 | 66.01049868766404 | 51.70603674540683 | 49.4750656167979 | 53.93700787401575 | 50.26246719160105 |
| 98.12667261373774 | 70.73490813648294 | 74.93438320209974 | 64.43569553805774 | 61.41732283464567 | 67.19160104986877 | 62.46719160104987 |
| | | | | | | |

Figure: Dataset

| "ln | jb | | | | |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 233.0 209.0 191.0 | 30.0 110.0 19.0 | 28.0 38.0 152.0 | 184.0 50.0 186.0 | 174.0 7.0 10.0 |
| 0.0 | 34.90813648293963 | - | - | - | - |
| 1.9538188277087034 | 32.93963254593176 | 57.74278215223097 | 63.123359580052494 | 68.50393700787401 | 74.01574803149606 |
| 3.907637655417407 | 95.53805774278216 | 58.00524934383202 | 63.25459317585302 | 68.50393700787401 | 74.2782152230971 |
| 5.86145648312611 | 95.53805774278216 | 58.00524934383202 | 63.25459317585302 | 68.50393700787401 | 35.43307086614173 |
| 7.815275310834814 | 35.17060367454068 | 26.902887139107612 | 57.48031496062992 | 95.01312335958005 | - |
| 9.769094138543517 | 62.86089238845145 | 58.3989501312336 | 74.14698162729658 | 36.22047244094488 | - |
| 11.72291296625222 | 56.955380577427825 | 58.267716535433074 | 85.30183727034121 | 36.876640419947506 | 85.95800524934383 |
| 13.676731793960924 | 62.99212598425197 | 73.22834645669292 | 57.48031496062992 | 64.30446194225722 | 36.74540682414698 |
| 15.630550621669627 | 37.270341207349084 | 70.20997375328083 | 9.58005249343832 | 6.955380577427822 | 74.93438320209974 |
| 17.58436944937833 | 37.79527559055118 | 8.398950131233596 | 8.923884514435695 | 6.955380577427822 | 10.236220472440944 |
| 19.538188277087034 | 38.32020997375328 | 9.186351706036746 | 8.136482939632545 | 6.955380577427822 | 15.485564304461942 |
| 21.492007104795736 | 38.4514435695538 | 9.186351706036746 | 8.79265091863517 | 7.742782152230971 | 10.236220472440944 |
| 23.44582593250444 | 38.976377952755904 | 22.30971128608924 | 37.79527559055118 | 8.005249343832022 | 10.236220472440944 |
| 25.399644760213143 | 39.63254593175853 | 22.178477690288712 | 7.874015748031496 | 8.26771653543307 | 10.89238845144357 |
| 27.353463587921848 | 40.15748031496063 | 22.178477690288712 | 38.32020997375328 | 8.398950131233596 | 10.761154855643044 |
| 29.30728241563055 | 40.41994750656168 | 22.178477690288712 | 6.824146981627297 | 8.26771653543307 | 11.548556430446194 |
| 31.261101243339255 | 41.46981627296588 | 22.834645669291337 | 7.086614173228346 | 8.26771653543307 | 17.322834645669293 |
| 33.214920071047956 | 41.86351706036746 | 23.490813648293962 | 40.28871391076115 | 8.398950131233596 | 11.94225721784777 |
| 35.16873889875666 | 41.99475065616798 | 9.186351706036746 | 41.0761154855643 | 8.136482939632545 | 17.191601049868765 |
| 37.12255772646537 | 42.650918635170605 | 9.317585301837271 | 41.46981627296588 | 8.005249343832022 | 12.860892388451443 |
| 39.07637655417407 | 43.175853018372706 | 8.923884514435695 | 42.25721784776903 | 8.005249343832022 | 12.860892388451443 |
| 41.03019538188277 | 43.963254593175854 | 25.721784776902886 | 7.480314960629921 | 8.005249343832022 | 14.435695538057743 |
| 42.98401420959147 | 43.7007874015748 | 26.11548556430446 | 9.58005249343832 | 8.923884514435695 | 14.173228346456693 |
| 44.93783303730018 | 14.435695538057743 | 26.246719160104988 | - | 9.711286089238845 | 14.173228346456693 |
| 46.89165186500888 | 45.40682414698163 | 26.902887139107612 | 8.923884514435695 | 9.711286089238845 | 14.960629921259843 |
| 48.84547069271758 | 45.93175853018373 | 28.346456692913385 | 9.58005249343832 | 10.236220472440944 | 14.829396325459317 |
| 50.799289520426285 | - | 29.26509186351706 | 10.10498687664042 | 10.89238845144357 | 15.616797900262467 |
| 52.753108348134994 | 47.3753280839895 | 10.236220472440944 | 10.62992125984252 | 11.548556430446194 | 16.79790026246719 |
| 54.706927175843695 | 48.818897637795274 | 31.62729658792651 | 11.286089238845145 | 12.204724409448819 | 17.454068241469816 |
| 56.6607460035524 | 49.08136482939633 | 32.93963254593176 | 11.548556430446194 | 12.992125984251969 | 18.11023622047244 |
| 58.6145648312611 | 49.86876640419948 | 13.123359580052494 | 12.46719160104987 | 13.779527559055119 | 19.553805774278214 |
| 60.56838365896981 | 50.39370078740158 | 13.779527559055119 | 12.335958005249344 | 14.698162729658792 | 20.866141732283463 |
| 62.52220248667851 | 51.83727034120735 | 14.566929133858268 | 13.517060367454068 | 16.27296587926509 | 21.522309711286088 |
| 64.47602131438721 | 52.75590551181102 | 15.879265091863518 | 14.435695538057743 | 17.454068241469816 | 22.965879265091864 |
| 66.42984014209591 | 53.805774278215225 | 16.929133858267715 | 15.879265091863518 | 19.553805774278214 | 24.80314960629921 |
| 68.38365896980461 | 54.59317585301837 | 19.291338582677167 | 17.84776902887139 | 20.73490813648294 | 25.328083989501312 |
| 70.33747779751332 | 55.7742782152231 | 20.603674540682416 | 19.028871391076116 | 22.178477690288712 | 26.509186351706038 |
| 72.29129662522203 | 57.21784776902887 | 22.04724409448819 | 20.341207349081365 | 23.88451443569554 | 27.559055118110237 |
| 74.24511545293073 | 58.3989501312336 | 23.490813648293962 | 22.04724409448819 | 25.19685039370079 | 29.396325459317584 |
| 76.19893428063943 | 59.31758530183727 | 25.853018372703414 | 23.62204724409449 | 26.64041994750656 | 34.38320209973753 |
| 78.15275310834814 | 61.15485564304462 | 55.118110236220474 | 26.246719160104988 | 29.00262467191601 | 32.41469816272966 |
| 80.10657193605684 | 62.46719160104987 | 29.133858267716537 | 29.79002624671916 | 32.020997375328086 | 38.58267716535433 |
| 82.06039076376554 | 64.1732283464567 | 31.758530183727036 | 33.727034120734906 | 35.69553805774278 | 37.00787401574803 |
| 84.01420959147424 | 66.40419947506561 | 35.69553805774278 | 37.00787401574803 | 37.92650918635171 | 39.501312335958005 |
| 85.96802841918294 | 67.32283464566929 | 39.10761154855643 | 40.28871391076115 | 40.94488188976378 | 41.86351706036746 |
| 87.92184724689166 | 69.55380577427822 | 42.38845144356955 | 43.7007874015748 | 46.3254593175853 | 45.275590551181104 |
| 89.87566607460036 | 70.86614173228347 | 45.93175853018373 | 47.3753280839895 | 47.63779527559055 | 49.86876640419948 |
| 91.82948490230906 | 73.49081364829397 | 70.4724409448819 | 53.1496062992126 | 54.98687664041995 | 56.824146981627294 |
| 93.78330373001776 | 56.56167979002625 | 57.08661417322835 | 57.74278215223097 | 59.31758530183727 | 62.46719160104987 |
| 95.73712255772647 | 78.21522309711285 | 63.51706036745407 | 65.09186351706036 | 67.45406824146981 | 62.46719160104987 |
| 97.69094138543517 | 80.5774278215223 | 80.31496062992126 | 72.96587926509186 | 75.32808398950131 | 76.64041994750656 |
| 99.64476021314387 | 84.64566929133858 | - | - | 82.28346456692914 | 83.46456692913385 |
| | | | | | |

Figure: nmb