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Task 1: Results

| | Decision Tree | | | | SVM | | | | Neural Network | | | |
|-------|---------------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|
| Group | | | | | | | | | | | | |
| No. | Precision | Recall | F1 | AUC | Precision | Recall | F1 | AUC | Precision | Recall | F1 | AUC |
| 1 | 0.65625 | 0.617647 | 0.636364 | 0.585294 | 1 | 0.264706 | 0.418605 | 0.7 | 0.9 | 0.529412 | 0.666667 | 0.732353 |
| 2 | 0.925926 | 0.925926 | 0.925926 | 0.945419 | 0.96 | 0.888889 | 0.923077 | 0.97271 | 0.952381 | 0.740741 | 0.833333 | 0.892788 |
| 3 | 0.846154 | 0.88 | 0.862745 | 0.888718 | 1 | 0.72 | 0.837209 | 0.869744 | 0.807692 | 0.84 | 0.823529 | 0.895385 |
| 4 | 0.8 | 0.965517 | 0.875 | 0.914286 | 0.952381 | 0.689655 | 0.8 | 0.944828 | 0.857143 | 0.62069 | 0.72 | 0.858128 |
| 5 | 0.647059 | 0.6875 | 0.666667 | 0.697266 | 0.740741 | 0.625 | 0.677966 | 0.786133 | 0.666667 | 0.75 | 0.705882 | 0.782227 |
| 6 | 0.966667 | 0.966667 | 0.966667 | 0.968627 | 1 | 0.9 | 0.947368 | 0.987255 | 1 | 0.833333 | 0.909091 | 0.978431 |
| 7 | 0.689655 | 0.625 | 0.655738 | 0.730957 | 1 | 0.5 | 0.666667 | 0.758789 | 0.85 | 0.53125 | 0.653846 | 0.773438 |
| 8 | 0.892857 | 0.78125 | 0.833333 | 0.845215 | 0.954545 | 0.65625 | 0.777778 | 0.888672 | 0.956522 | 0.6875 | 0.8 | 0.892578 |
| 9 | 0.735294 | 0.757576 | 0.746269 | 0.737048 | 0.875 | 0.424242 | 0.571429 | 0.856305 | 1 | 0.545455 | 0.705882 | 0.879765 |
| 10 | 0.703704 | 0.655172 | 0.678571 | 0.759113 | 0.607143 | 0.586207 | 0.596491 | 0.697537 | 0.62963 | 0.586207 | 0.607143 | 0.755665 |
| 11 | 0.823529 | 0.8 | 0.811594 | 0.848768 | 1 | 0.685714 | 0.813559 | 0.912315 | 0.911765 | 0.885714 | 0.898551 | 0.949754 |
| 12 | 0.764706 | 0.83871 | 0.8 | 0.815054 | 0.952381 | 0.645161 | 0.769231 | 0.753763 | 0.8 | 0.387097 | 0.521739 | 0.607527 |
| 13 | 0.576923 | 0.5 | 0.535714 | 0.513235 | 0.75 | 0.5 | 0.6 | 0.647549 | 0.846154 | 0.733333 | 0.785714 | 0.894608 |
| 14 | 0.818182 | 0.818182 | 0.818182 | 0.83089 | 1 | 0.666667 | 0.8 | 0.886608 | 0.814815 | 0.666667 | 0.733333 | 0.802542 |
| 15 | 0.878788 | 0.90625 | 0.892308 | 0.90918 | 0.954545 | 0.65625 | 0.777778 | 0.964844 | 0.9 | 0.84375 | 0.870968 | 0.943359 |
| 16 | 0.740741 | 0.526316 | 0.615385 | 0.637652 | 0.705882 | 0.315789 | 0.436364 | 0.624494 | 0.619048 | 0.342105 | 0.440678 | 0.484818 |
| 17 | 1 | 0.828571 | 0.90625 | 0.914286 | 1 | 0.714286 | 0.833333 | 0.901478 | 1 | 0.742857 | 0.852459 | 0.933005 |
| 18 | 0.783784 | 0.878788 | 0.828571 | 0.823069 | 1 | 0.727273 | 0.842105 | 0.936461 | 0.8 | 0.848485 | 0.823529 | 0.899316 |
| 19 | 0.714286 | 0.78125 | 0.746269 | 0.77002 | 0.896552 | 0.8125 | 0.852459 | 0.917969 | 0.794118 | 0.84375 | 0.818182 | 0.892578 |
| 20 | 0.933333 | 0.903226 | 0.918033 | 0.938508 | 1 | 0.741935 | 0.851852 | 0.967742 | 0.92 | 0.741935 | 0.821429 | 0.947581 |
| 21 | 0.833333 | 0.857143 | 0.84507 | 0.868473 | 0.933333 | 0.8 | 0.861538 | 0.889655 | 0.964286 | 0.771429 | 0.857143 | 0.923153 |
| 22 | 0.782609 | 0.580645 | 0.666667 | 0.818311 | 0.92 | 0.741935 | 0.821429 | 0.908918 | 0.888889 | 0.774194 | 0.827586 | 0.885199 |
| 23 | 0.96 | 0.75 | 0.842105 | 0.881836 | 1 | 0.6875 | 0.814815 | 0.938477 | 0.958333 | 0.71875 | 0.821429 | 0.932617 |
| 24 | 0.75 | 0.870968 | 0.80597 | 0.892962 | 0.931034 | 0.870968 | 0.9 | 0.904203 | 0.84375 | 0.870968 | 0.857143 | 0.893451 |
| 25 | 0.543478 | 0.862069 | 0.666667 | 0.710345 | 0.678571 | 0.655172 | 0.666667 | 0.780296 | 0.453125 | 1 | 0.623656 | 0.608867 |
| 26 | 0.8125 | 0.764706 | 0.787879 | 0.811765 | 0.952381 | 0.588235 | 0.727273 | 0.785294 | 0.684211 | 0.764706 | 0.722222 | 0.733333 |

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| Average | 0.791188 | 0.77323 | 0.777283 | 0.800879 | 0.908896 | 0.664797 | 0.758446 | 0.857496 | 0.833016 | 0.717965 | 0.758933 | 0.831625 |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 33 | 0.896552 | 0.742857 | 0.8125 | 0.829557 | 1 | 0.6 | 0.75 | 0.940887 | 0.8 | 0.8 | 0.8 | 0.870936 |
| 32 | 0.8 | 0.888889 | 0.842105 | 0.798611 | 0.931034 | 0.75 | 0.830769 | 0.888889 | 0.928571 | 0.722222 | 0.8125 | 0.871032 |
| 31 | 0.571429 | 0.347826 | 0.432432 | 0.485822 | 0.619048 | 0.565217 | 0.590909 | 0.672968 | 0.7 | 0.608696 | 0.651163 | 0.659735 |
| 30 | 0.758621 | 0.709677 | 0.733333 | 0.762903 | 0.869565 | 0.645161 | 0.740741 | 0.795699 | 0.666667 | 0.645161 | 0.655738 | 0.774194 |
| 29 | 0.92 | 0.851852 | 0.884615 | 0.887888 | 1 | 0.814815 | 0.897959 | 0.987988 | 0.952381 | 0.740741 | 0.833333 | 0.837838 |
| 28 | 0.742857 | 0.83871 | 0.787879 | 0.816716 | 0.862069 | 0.806452 | 0.833333 | 0.886608 | 0.714286 | 0.806452 | 0.757576 | 0.831867 |
| 27 | 0.84 | 0.807692 | 0.823529 | 0.791209 | 0.947368 | 0.692308 | 0.8 | 0.942308 | 0.909091 | 0.769231 | 0.833333 | 0.825549 |

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Task 2: Results

| | | Decisio | n Tree | | SVM | | | | Neural Network | | | |
|---------|-----------|----------|----------|----------|-----------|----------|----------|----------|----------------|----------|----------|----------|
| Group | | | | | | | | | | | | |
| No. | Precision | Recall | F1 | AUC | Precision | Recall | F1 | AUC | Precision | Recall | F1 | AUC |
| 11 | 0.767442 | 0.825 | 0.795181 | 0.830625 | 0.927536 | 0.8 | 0.85906 | 0.951875 | 0.822222 | 0.925 | 0.870588 | 0.947031 |
| 12 | 0.743243 | 0.723684 | 0.733333 | 0.786011 | 0.893617 | 0.552632 | 0.682927 | 0.864266 | 0.75 | 0.631579 | 0.685714 | 0.832064 |
| 13 | 0.618182 | 0.85 | 0.715789 | 0.788438 | 0.77907 | 0.8375 | 0.807229 | 0.827734 | 0.636364 | 0.875 | 0.736842 | 0.828203 |
| 14 | 0.74026 | 0.7125 | 0.726115 | 0.755313 | 0.927273 | 0.6375 | 0.75556 | 0.850156 | 0.826087 | 0.7125 | 0.765101 | 0.830313 |
| 15 | 0.8875 | 0.8875 | 0.8875 | 0.933594 | 0.969697 | 0.8 | 0.876712 | 0.970313 | 0.911392 | 0.9 | 0.90566 | 0.977188 |
| 16 | 0.626667 | 0.5875 | 0.606452 | 0.673438 | 0.777778 | 0.4375 | 0.56 | 0.661094 | 0.689655 | 0.5 | 0.57971 | 0.698438 |
| 17 | 0.802469 | 0.8125 | 0.807453 | 0.867813 | 1 | 0.6625 | 0.796992 | 0.955 | 1 | 0.7375 | 0.848921 | 0.951875 |
| 18 | 0.654206 | 0.875 | 0.748663 | 0.764297 | 0.776316 | 0.7375 | 0.75641 | 0.798906 | 0.683673 | 0.8375 | 0.752809 | 0.840313 |
| 19 | 0.625 | 0.75 | 0.681818 | 0.687109 | 0.662651 | 0.6875 | 0.674847 | 0.758438 | 0.674157 | 0.75 | 0.710059 | 0.80125 |
| 20 | 0.684685 | 0.962025 | 0.8 | 0.749239 | 0.764045 | 0.860759 | 0.809524 | 0.842493 | 0.768421 | 0.924051 | 0.83908 | 0.91636 |
| 21 | 0.514085 | 0.9125 | 0.657658 | 0.473203 | 0.577586 | 0.8375 | 0.683673 | 0.771406 | 0.549618 | 0.9 | 0.682464 | 0.734219 |
| 22 | 0.561404 | 0.790123 | 0.65641 | 0.648453 | 0.60396 | 0.753086 | 0.67033 | 0.752782 | 0.586207 | 0.839506 | 0.690355 | 0.765585 |
| 23 | 0.757895 | 0.9 | 0.822857 | 0.823906 | 0.910256 | 0.8875 | 0.898734 | 0.964844 | 0.869048 | 0.9125 | 0.890244 | 0.955313 |
| 24 | 0.795181 | 0.825 | 0.809816 | 0.851094 | 0.850746 | 0.7125 | 0.77551 | 0.889063 | 0.863014 | 0.7875 | 0.823529 | 0.898281 |
| 25 | 0.568182 | 0.625 | 0.595238 | 0.604297 | 0.708333 | 0.6375 | 0.671053 | 0.700781 | 0.666667 | 0.625 | 0.645161 | 0.719688 |
| 26 | 0.663043 | 0.7625 | 0.709302 | 0.726719 | 0.77027 | 0.7125 | 0.74026 | 0.813281 | 0.77381 | 0.8125 | 0.792683 | 0.850313 |
| 27 | 0.649485 | 0.926471 | 0.763636 | 0.867539 | 0.935484 | 0.852941 | 0.892308 | 0.932093 | 0.935484 | 0.852941 | 0.892308 | 0.935121 |
| 28 | 0.670213 | 0.7875 | 0.724138 | 0.722109 | 0.7625 | 0.7625 | 0.7625 | 0.841875 | 0.764706 | 0.8125 | 0.787879 | 0.852813 |
| 29 | 0.778947 | 0.925 | 0.845714 | 0.915781 | 0.930556 | 0.8375 | 0.881579 | 0.961563 | 0.934211 | 0.8875 | 0.910256 | 0.959531 |
| 30 | 0.677419 | 0.828947 | 0.745562 | 0.728705 | 0.662651 | 0.723684 | 0.691824 | 0.784453 | 0.659341 | 0.789474 | 0.718563 | 0.786877 |
| 31 | 0.619048 | 0.45614 | 0.525253 | 0.599415 | 0.733333 | 0.192982 | 0.305556 | 0.524777 | 0.538462 | 0.245614 | 0.337349 | 0.532472 |
| 32 | 0.674157 | 0.75 | 0.710059 | 0.756563 | 0.830769 | 0.675 | 0.744828 | 0.842344 | 0.859375 | 0.6875 | 0.763889 | 0.840469 |
| 33 | 0.657658 | 0.9125 | 0.764398 | 0.777188 | 0.825 | 0.825 | 0.825 | 0.904844 | 0.742268 | 0.9 | 0.813559 | 0.906563 |
| Average | 0.68419 | 0.799452 | 0.731841 | 0.753515 | 0.807801 | 0.714069 | 0.744453 | 0.833234 | 0.761051 | 0.775898 | 0.758379 | 0.841751 |