**Project 4**

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**Phase 1 – User dependent Analysis**

Filename : proj4\_phase1.m

Input : eating\_proj4\_input.csv, noneating\_proj4\_input.csv

Output : See below

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Machines | Precision | Recall | F1score | ROC | |
| TPR | FPR |
| Decision Tree | 0.9691 | 0.8698 | 0.9167 | 97.2222 | 13.0208 |
| SVM | 0.8326 | 0.9931 | 0.9058 | 80.0347 | 0.69444 |
| Neural network | 0.9682 | 0.8993 | 0.9325 | 97.0486 | 10.0694 |

**Phase 2 – User Independent Analysis**

Filename : proj4\_phase2.m

Input : Copy all files from this [link](https://drive.google.com/open?id=1MnIbittnm1WlHu99PBeihcdfI8Wy8TU1) to the working directory

Output : See below

Decision Tree

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Team | Precision | Recall | F1score | ROC | |
| TPR | FPR |
| Team11 | 0.58075 | 0.24722 | 0.34681 | 82.153 | 75.278 |
| Team12 | 0.77543 | 0.40764 | 0.53437 | 88.194 | 59.236 |
| Team13 | 0.7694 | 0.24097 | 0.367 | 92.778 | 75.903 |
| Team14 | 0.87766 | 0.22917 | 0.36344 | 96.806 | 77.083 |
| Team15 | 0.83333 | 0.62153 | 0.71201 | 87.569 | 37.847 |
| Team16 | 0.48411 | 0.275 | 0.35075 | 70.694 | 72.5 |
| Team17 | 0.51587 | 0.27083 | 0.35519 | 74.583 | 72.917 |
| Team18 | 0.56863 | 0.24167 | 0.33918 | 81.667 | 75.833 |
| Team19 | 0.76471 | 0.25278 | 0.37996 | 92.222 | 74.722 |
| Team20 | 0.41242 | 0.17986 | 0.25048 | 74.375 | 82.014 |
| Team21 | 0.77377 | 0.32778 | 0.46049 | 90.417 | 67.222 |
| Team22 | 0.19048 | 0.030556 | 0.052663 | 87.014 | 96.944 |
| Team23 | 0.71201 | 0.34167 | 0.46176 | 86.181 | 65.833 |
| Team24 | 0.81836 | 0.58194 | 0.68019 | 87.083 | 41.806 |
| Team25 | 0.86364 | 0.34306 | 0.49105 | 94.583 | 65.694 |
| Team26 | 0.38287 | 0.10556 | 0.16549 | 82.986 | 89.444 |
| Team27 | 0.51469 | 0.32847 | 0.40102 | 69.028 | 67.153 |
| Team28 | 0.46076 | 0.28542 | 0.35249 | 66.597 | 71.458 |
| Team29 | 0.84416 | 0.36111 | 0.50584 | 93.333 | 63.889 |
| Team30 | 0.50539 | 0.22778 | 0.31403 | 77.708 | 77.222 |
| Team31 | 0.64228 | 0.16458 | 0.26202 | 90.833 | 83.542 |
| Team32 | 0.86977 | 0.50556 | 0.63944 | 92.431 | 49.444 |
| Team33 | 0.6793 | 0.62222 | 0.64951 | 70.625 | 37.778 |

SVM

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Team | Precision | Recall | F1score | ROC | |
| TPR | FPR |
|  |  |  |  |  |  |

Neural network

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Team | Precision | Recall | F1score | ROC | |
| TPR | FPR |
|  |  |  |  |  |  |