

|               | Model                            | Cohen's Kappa Train | Balanced Accuracy Train | Accuracy Train | Cohen's Kappa Test | Balanced Accuracy Test | Accuracy Test |             |
|---------------|----------------------------------|---------------------|-------------------------|----------------|--------------------|------------------------|---------------|-------------|
| SVM           | model_svm_50_2_4                 | 23.09               | 29.51                   | 29.5           | 24.8               | 27.17                  | 31.23         | Worst Model |
|               | model_svm_150_2_4                | 24.55               | 30.8                    | 30.83          | 26.45              | 30.39                  | 32.81         |             |
|               | model_svm_50_4_8                 | 25.1                | 31.29                   | 31.33          | 26.87              | 28.98                  | 33.16         |             |
|               | model_svm_150_4_8                | 26.82               | 32.86                   | 32.92          | 29.69              | 33.68                  | 35.79         |             |
|               | model_svm_50_6_12                | 25.0                | 31.26                   | 31.25          | 27.48              | 29.06                  | 33.68         |             |
|               | model_svm_150_6_12               | 25.73               | 31.88                   | 31.92          | 27.96              | 28.98                  | 34.21         |             |
|               | pca_model_svm_50_2_4             | 11.45               | 18.8                    | 18.83          | 13.0               | 15.04                  | 20.53         |             |
|               | pca_model_svm_150_2_4            | 9.99                | 17.5                    | 17.5           | 10.75              | 14.42                  | 18.42         |             |
|               | pca_model_svm_50_4_8             | 10.83               | 18.26                   | 18.25          | 10.74              | 15.6                   | 18.42         |             |
|               | pca_model_svm_150_4_8            | 9.19                | 16.74                   | 16.75          | 9.74               | 13.08                  | 17.54         |             |
|               | pca_model_svm_50_6_12            | 10.45               | 17.89                   | 17.92          | 7.48               | 10.34                  | 15.44         |             |
|               | pca_model_svm_150_6_12           | 10.09               | 17.59                   | 17.58          | 13.42              | 17.78                  | 20.88         | Best Model  |
|               | fv_model_svm_50_4_8              | 19.91               | 26.57                   | 26.58          | 18.67              | 22.37                  | 25.61         |             |
|               | fv_model_svm_150_4_8             | 14.28               | 21.43                   | 21.42          | 17.98              | 22.82                  | 24.91         |             |
|               | model_svm_dense                  | 33.37               | 38.91                   | 38.92          | 35.69              | 39.25                  | 41.05         |             |
|               | model_svm_dense_key_50_2_4       | 32.64               | 38.23                   | 38.25          | 35.66              | 38.74                  | 41.05         |             |
|               | model_svm_dense_key_150_2_4      | 25.92               | 32.1                    | 32.08          | 31.86              | 36.82                  | 37.54         |             |
|               | model_svm_dense_key_50_4_8       | 32.73               | 38.31                   | 38.33          | 37.41              | 39.96                  | 42.63         |             |
|               | model_svm_dense_key_150_4_8      | 27.72               | 33.7                    | 33.75          | 34.48              | 38.48                  | 40.0          |             |
|               | model_svm_dense_key_50_6_12      | 32.91               | 38.48                   | 38.5           | 37.38              | 40.22                  | 42.63         |             |
|               | model_svm_dense_key_150_6_12     | 26.28               | 32.41                   | 32.42          | 31.81              | 34.55                  | 37.54         |             |
| Random Forest | pca_model_svm_dense_key_50_2_4   | 27.55               | 33.6                    | 33.58          | 32.18              | 35.64                  | 37.89         | Worst Model |
|               | pca_model_svm_dense_key_150_2_4  | 19.0                | 25.74                   | 25.75          | 18.69              | 22.74                  | 25.44         |             |
|               | pca_model_svm_dense_key_50_4_8   | 26.46               | 32.6                    | 32.58          | 28.78              | 31.89                  | 34.74         |             |
|               | pca_model_svm_dense_key_150_4_8  | 20.1                | 26.72                   | 26.75          | 19.63              | 25.73                  | 26.32         |             |
|               | pca_model_svm_dense_key_50_6_12  | 24.64               | 30.93                   | 30.92          | 24.36              | 28.35                  | 30.7          |             |
|               | pca_model_svm_dense_key_150_6_12 | 20.0                | 26.65                   | 26.67          | 23.78              | 29.45                  | 30.18         |             |
|               | model_rf_50_2_4                  | 22.45               | 28.89                   | 28.92          | 24.12              | 27.89                  | 30.53         | Best Model  |
|               | model_rf_150_2_4                 | 21.64               | 28.18                   | 28.17          | 24.73              | 28.51                  | 31.05         |             |
|               | model_rf_50_4_8                  | 23.82               | 30.17                   | 30.17          | 28.21              | 31.45                  | 34.21         |             |
|               | model_rf_150_4_8                 | 23.18               | 29.54                   | 29.58          | 25.66              | 29.55                  | 31.93         |             |
|               | model_rf_50_6_12                 | 24.18               | 30.54                   | 30.5           | 25.11              | 28.91                  | 31.4          |             |
|               | model_rf_150_6_12                | 20.72               | 27.31                   | 27.33          | 25.87              | 28.71                  | 32.11         |             |
|               | pca_model_rf_50_2_4              | 13.17               | 20.4                    | 20.42          | 12.1               | 18.2                   | 19.3          |             |
|               | pca_model_rf_150_2_4             | 12.46               | 19.75                   | 19.75          | 14.37              | 19.95                  | 21.58         |             |
|               | pca_model_rf_50_4_8              | 11.91               | 19.24                   | 19.25          | 11.08              | 17.77                  | 18.42         |             |
|               | pca_model_rf_150_4_8             | 11.19               | 18.6                    | 18.58          | 9.22               | 15.24                  | 16.84         |             |
|               | pca_model_rf_50_6_12             | 11.73               | 19.07                   | 19.08          | 8.53               | 15.09                  | 16.14         | Worst Model |
|               | pca_model_rf_150_6_12            | 10.18               | 17.69                   | 17.67          | 10.12              | 16.17                  | 17.72         |             |
|               | fv_model_rf_50_4_8               | 22.28               | 28.71                   | 28.75          | 24.07              | 27.54                  | 30.53         |             |
|               | fv_model_rf_150_4_8              | 18.9                | 25.63                   | 25.67          | 22.43              | 25.59                  | 28.95         |             |
|               | model_rf_dense                   | 26.81               | 32.88                   | 32.92          | 27.21              | 31.36                  | 33.33         |             |
|               | model_rf_dense_key_50_2_4        | 29.72               | 35.53                   | 35.58          | 30.5               | 34.33                  | 36.32         |             |
|               | model_rf_dense_key_150_2_4       | 29.63               | 35.49                   | 35.5           | 30.85              | 33.92                  | 36.67         |             |
|               | model_rf_dense_key_50_4_8        | 29.81               | 35.59                   | 35.67          | 30.47              | 33.95                  | 36.32         |             |
|               | model_rf_dense_key_150_4_8       | 30.36               | 36.11                   | 36.17          | 31.66              | 34.62                  | 37.37         |             |
|               | model_rf_dense_key_50_6_12       | 30.91               | 36.61                   | 36.67          | 31.64              | 35.25                  | 37.37         |             |
|               | model_rf_dense_key_150_6_12      | 28.37               | 34.35                   | 34.33          | 33.91              | 35.97                  | 39.47         | Best Model  |
|               | pca_model_rf_dense_key_50_2_4    | 25.73               | 31.86                   | 31.92          | 28.79              | 33.03                  | 34.74         |             |
|               | pca_model_rf_dense_key_150_2_4   | 25.63               | 31.8                    | 31.83          | 28.15              | 32.97                  | 34.21         |             |
|               | pca_model_rf_dense_key_50_4_8    | 26.44               | 32.54                   | 32.58          | 27.86              | 32.27                  | 33.86         |             |
|               | pca_model_rf_dense_key_150_4_8   | 25.0                | 31.22                   | 31.25          | 27.39              | 31.12                  | 33.51         |             |
|               | pca_model_rf_dense_key_50_6_12   | 24.91               | 31.11                   | 31.17          | 25.73              | 30.13                  | 31.93         |             |
|               | pca_model_rf_dense_key_150_6_12  | 24.46               | 30.69                   | 30.75          | 27.65              | 32.56                  | 33.68         |             |