

Heart Failure Prediction Modeling

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Final Model

Random Forest with Tuned Hyperparameters

| | |
|-----------------|---------------------------------------|
| Model | Random Forest |
| Features | Ejection Fraction Serum Creatinine |
| Target Variable | Death Event / Boolean |

Tuned Hyperparameters

| | |
|------------------|-------------|
| n_estimators | 1600 |
| min_sample_split | 10 |
| min_sample_leaf | 4 |
| max_features | square root |
| max_depth | 30 |
| bootstrap | TRUE |

Model Elavaluation Metrics

Averaged from 100 Iterations

| | |
|------------------------------|-------|
| F1 Score | 0.704 |
| Accuracy | 0.788 |
| Balanced Accuracy | 0.780 |
| Precision Score for Positive | 0.658 |
| Precision Score for Negative | 0.869 |
| Recall Score for Positive | 0.758 |
| Recall Score for Negative | 0.803 |