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| --- | --- |
| Preprocessing | Low pass filter, cutoff = 2Hz |
| All Features | Avg, Max, Min, Range, Std, RMS, Skew, Energy, Kurtosis, Energy Peak, Freq Peak, SMA, IQR |

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| Classes | Window Size | Columns | Model | Accuracy | Precision, Recall &  F-score | Features Selected by Model |
| Healthy, LBP & OA | Overlapping = 0.25, Seconds = 8 | Acc X, Y, Z | XG Boost | 61.76% | Healthy: 0.75, 0.75, 0.75  OA: 0.50, 0.15, 0.24  LBP: 0.59, 1.00, 0.74 | Avg, Max, Min, Range, Std, RMS, Skew, Energy |
| Healthy & LBP | Overlapping = 0, Seconds = 5 | Acc X, Y, Z | Random Forest, SVM | 94.73% | Healthy: 1.00, 0.86, 0.92  LBP: 0.92, 1.00, 0.96 | Avg, Max, Min, Range, Std, RMS, Skew |
| Healthy & OA | Overlapping = 0, Seconds = 10 | Acc X, Y, Z | XG Boost | 100% | Healthy: 1.00, 1.00, 1.00  OA: 1.00, 1.00, 1.00 | Avg, Max, Min, Range, Std, RMS, Skew |
| Healthy & Unhealthy | Overlapping = 0, Seconds = 8 | Acc X, Y, Z | XG Boost, MLP | 95% | Healthy: 0.75, 0.75, 0.75  OA: 0.50, 0.15, 0.24  LBP: 0.59, 1.00, 0.74 | Avg, Max, Min, Range, Std, RMS, Skew |