SVM Report

Features:

['age', 'sex', 'cp', 'trestbps', 'chol', 'fbs', 'restecg', 'thalach', 'exang', 'oldpeak', 'slope', 'ca','thal']

At Learning Rate 0.001

Accuracy of Training is : 80.9090909090909 %

Accuracy of Testing is : 83.13253012048193 %

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At Learning Rate 0.003

Accuracy of Training is : 80.9090909090909 %

Accuracy of Testing is : 83.13253012048193 %

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At Learning Rate 0.01

Accuracy of Training is : 80.9090909090909 %

Accuracy of Testing is : 83.13253012048193 %

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At Learning Rate 0.03

Accuracy of Training is : 80.9090909090909 %

Accuracy of Testing is : 83.13253012048193 %

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At Learning Rate 0.1

Accuracy of Training is : 81.36363636363636 %

Accuracy of Testing is : 87.95180722891565 %

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At Learning Rate 0.3

Accuracy of Training is : 79.0909090909091 %

Accuracy of Testing is : 84.33734939759037 %

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At Learning Rate 1.0

Accuracy of Training is : 79.0909090909091 %

Accuracy of Testing is : 81.92771084337349 %

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Features:

['trestbps', 'chol', 'thalach', 'oldpeak']

At Learning Rate 0.001

Accuracy of Training is : 76.81818181818181 %

Accuracy of Testing is : 78.3132530120482 %

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At Learning Rate 0.003

Accuracy of Training is : 76.81818181818181 %

Accuracy of Testing is : 78.3132530120482 %

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At Learning Rate 0.01

Accuracy of Training is : 77.27272727272727 %

Accuracy of Testing is : 79.51807228915662 %

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At Learning Rate 0.03

Accuracy of Training is : 77.27272727272727 %

Accuracy of Testing is : 78.3132530120482 %

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At Learning Rate 0.1

Accuracy of Training is : 73.63636363636363 %

Accuracy of Testing is : 74.69879518072288 %

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At Learning Rate 0.3

Accuracy of Training is : 73.18181818181819 %

Accuracy of Testing is : 71.08433734939759 %

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At Learning Rate 1.0

Accuracy of Training is : 70.0 %

Accuracy of Testing is : 65.06024096385542 %

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Features:

['fbs', 'restecg', 'thalach', 'exang', 'oldpeak']

At Learning Rate 0.001

Accuracy of Training is : 77.72727272727272 %

Accuracy of Testing is : 75.90361445783132 %

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At Learning Rate 0.003

Accuracy of Training is : 77.72727272727272 %

Accuracy of Testing is : 75.90361445783132 %

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At Learning Rate 0.01

Accuracy of Training is : 78.63636363636364 %

Accuracy of Testing is : 74.69879518072288 %

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At Learning Rate 0.03

Accuracy of Training is : 78.18181818181819 %

Accuracy of Testing is : 73.49397590361446 %

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At Learning Rate 0.1

Accuracy of Training is : 73.18181818181819 %

Accuracy of Testing is : 71.08433734939759 %

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At Learning Rate 0.3

Accuracy of Training is : 61.36363636363637 %

Accuracy of Testing is : 56.62650602409639 %

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At Learning Rate 1.0

Accuracy of Training is : 70.45454545454545 %

Accuracy of Testing is : 75.90361445783132 %

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Features:

['age', 'sex', 'cp', 'trestbps', 'exang', 'oldpeak', 'slope']

At Learning Rate 0.001

Accuracy of Training is : 83.18181818181817 %

Accuracy of Testing is : 79.51807228915662 %

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At Learning Rate 0.003

Accuracy of Training is : 82.72727272727273 %

Accuracy of Testing is : 78.3132530120482 %

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At Learning Rate 0.01

Accuracy of Training is : 82.27272727272728 %

Accuracy of Testing is : 77.10843373493977 %

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At Learning Rate 0.03

Accuracy of Training is : 82.72727272727273 %

Accuracy of Testing is : 79.51807228915662 %

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At Learning Rate 0.1

Accuracy of Training is : 82.27272727272728 %

Accuracy of Testing is : 83.13253012048193 %

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At Learning Rate 0.3

Accuracy of Training is : 80.9090909090909 %

Accuracy of Testing is : 79.51807228915662 %

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At Learning Rate 1.0

Accuracy of Training is : 79.0909090909091 %

Accuracy of Testing is : 81.92771084337349 %

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So, the Best Accuracy for all of these cases is when:

Features:

['age', 'sex', 'cp', 'trestbps', 'chol', 'fbs', 'restecg', 'thalach', 'exang', 'oldpeak', 'slope', 'ca','thal']

At Learning Rate 0.1

Accuracy of Training is : 81.36363636363636 %

Accuracy of Testing is : 87.9518072891565 %