**Target 3 – Origin (LUNAR)**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **overlap\_percentage** | | | | | | | | | |
| **Dataset** | **LUNAR** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **92.17** | **82.36** | **82.18** | **88.42** | **85.25** | **89.46** | **92.41** | **87.20** | **86.44** | **91.69** |
| **MI-F** | **84.37** | **79.08** | **85.69** | **82.88** | **86.21** | **81.89** | **82.56** | **79.35** | **77.87** | **80.14** |
| **MI-V** | **96.73** | **98.67** | **97.65** | **98.17** | **97.32** | **98.48** | **98.79** | **98.69** | **96.57** | **98.20** |
| **OPTDIGITS** | **99.76** | **98.38** | **98.85** | **99.27** | **100.00** | **100.00** | **99.99** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.81** | **99.71** | **99.94** | **99.96** | **99.87** | **99.88** | **99.96** | **100.00** | **100.00** | **100.00** |
| **SATELLITE** | **85.35** | **97.07** | **94.90** | **95.78** | **96.43** | **93.36** | **95.94** | **97.67** | **97.58** | **97.04** |
| **SHUTTLE** | **99.97** | **99.99** | **99.96** | **99.96** | **99.98** | **99.99** | **99.99** | **100.00** | **100.00** | **99.96** |
| **THYROID** | **85.44** | **90.32** | **86.54** | **92.21** | **88.40** | **90.87** | **90.06** | **87.41** | **86.47** | **87.04** |
| **K = 6** | **overlap\_percentage** | | | | | | | | | |
| **Dataset** | **LUNAR** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **92.17** | **73.34** | **90.99** | **88.42** | **92.83** | **93.00** | **92.52** | **92.92** | **92.19** | **91.93** |
| **MI-F** | **84.37** | **84.00** | **79.94** | **86.41** | **85.09** | **83.61** | **82.26** | **81.43** | **76.90** | **76.76** |
| **MI-V** | **96.73** | **99.05** | **98.44** | **99.44** | **98.65** | **99.45** | **98.33** | **98.70** | **99.30** | **98.76** |
| **OPTDIGITS** | **99.76** | **95.04** | **99.98** | **99.49** | **99.86** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.81** | **93.93** | **93.10** | **99.98** | **99.69** | **99.98** | **100.00** | **100.00** | **100.00** | **100.00** |
| **SATELLITE** | **85.35** | **96.70** | **98.65** | **98.12** | **98.20** | **98.35** | **94.27** | **95.29** | **96.22** | **97.02** |
| **SHUTTLE** | **99.97** | **98.00** | **99.97** | **100.00** | **99.98** | **99.98** | **99.98** | **100.00** | **99.99** | **99.99** |
| **THYROID** | **85.44** | **83.41** | **88.21** | **84.70** | **84.36** | **92.32** | **81.60** | **88.22** | **86.20** | **82.18** |
| **K = 9** | **overlap\_percentage** | | | | | | | | | |
| **Dataset** | **LUNAR** | **0.1** | **0.2** | **0.3** | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **92.17** | **68.58** | **86.99** | **89.66** | **87.30** | **92.52** | **91.82** | **92.57** | **93.07** | **91.75** |
| **MI-F** | **84.37** | **81.01** | **87.28** | **85.05** | **82.52** | **78.67** | **79.77** | **81.43** | **79.22** | **76.72** |
| **MI-V** | **96.73** | **88.23** | **98.87** | **99.46** | **99.25** | **98.93** | **99.45** | **99.45** | **99.18** | **98.46** |
| **OPTDIGITS** | **99.76** | **98.66** | **99.81** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.81** | **53.71** | **97.60** | **100.00** | **99.73** | **99.81** | **99.95** | **100.00** | **99.99** | **100.00** |
| **SATELLITE** | **85.35** | **97.26** | **98.63** | **98.61** | **95.67** | **98.44** | **89.75** | **98.43** | **95.99** | **97.59** |
| **SHUTTLE** | **99.97** | **99.79** | **99.96** | **100.00** | **99.98** | **99.99** | **99.99** | **100.00** | **99.99** | **99.99** |
| **THYROID** | **85.44** | **90.72** | **95.80** | **91.39** | **91.86** | **89.83** | **85.74** | **89.86** | **83.41** | **83.41** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **Target 1 : 10% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 10** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **87.13** | **78.69** | **78.72** | **90.11** | | **86.91** | **91.93** | **89.76** | **91.15** | **82.93** | **92.62** |
| **MI-F** | **50.34** | **51.43** | **48.52** | **48.97** | | **52.79** | **46.46** | **54.38** | **56.98** | **52.15** | **53.98** |
| **MI-V** | **77.15** | **71.66** | **72.23** | **74.28** | | **76.18** | **80.98** | **74.75** | **77.93** | **76.87** | **81.76** |
| **OPTDIGITS** | **94.57** | **98.34** | **99.42** | **99.41** | | **99.90** | **99.78** | **99.53** | **99.97** | **99.93** | **99.29** |
| **PENDIGITS** | **99.56** | **99.65** | **99.93** | **99.53** | | **98.33** | **98.37** | **100.00** | **100.00** | **100.00** | **100.00** |
| **SATELLITE** | **51.05** | **67.10** | **65.75** | **67.52** | | **65.31** | **65.78** | **70.65** | **65.57** | **67.01** | **68.75** |
| **SHUTTLE** | **39.34** | **99.63** | **93.29** | **93.29** | | **99.91** | **47.82** | **47.82** | **77.63** | **77.63** | **46.74** |
| **THYROID** | **71.36** | **71.50** | **87.63** | **89.75** | | **90.74** | **84.35** | **91.00** | **90.43** | **82.87** | **83.34** |
| **K = 6** | **Target 1 : 10% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 10** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **87.13** | **74.89** | **79.76** | **80.94** | | **88.33** | **90.63** | **93.60** | **94.27** | **94.18** | **95.52** |
| **MI-F** | **50.34** | **46.15** | **50.75** | **49.53** | | **51.88** | **48.88** | **52.01** | **49.41** | **50.63** | **53.52** |
| **MI-V** | **77.15** | **70.81** | **76.54** | **76.29** | | **75.98** | **81.16** | **79.99** | **77.98** | **80.71** | **85.08** |
| **OPTDIGITS** | **94.57** | **99.59** | **98.42** | **99.91** | | **96.83** | **99.86** | **99.98** | **99.93** | **100.00** | **99.26** |
| **PENDIGITS** | **99.56** | **92.03** | **96.20** | **99.88** | | **99.42** | **99.69** | **99.97** | **100.00** | **99.27** | **99.72** |
| **SATELLITE** | **51.05** | **70.14** | **70.94** | **75.56** | | **73.14** | **67.57** | **71.04** | **76.50** | **77.06** | **76.63** |
| **SHUTTLE** | **39.34** | **94.61** | **96.29** | **99.69** | | **99.25** | **65.50** | **65.50** | **80.12** | **68.65** | **58.08** |
| **THYROID** | **71.36** | **90.55** | **87.38** | **69.18** | | **83.41** | **83.72** | **87.94** | **89.35** | **84.97** | **87.32** |
| **K = 9** | **Target 1 : 10% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 10** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **87.13** | **71.40** | **77.66** | **86.57** | | **79.15** | **93.39** | **91.57** | **93.36** | **94.32** | **94.86** |
| **MI-F** | **50.34** | **51.13** | **49.22** | **49.72** | | **55.06** | **52.89** | **52.80** | **53.69** | **53.09** | **51.58** |
| **MI-V** | **77.15** | **74.52** | **75.70** | **75.04** | | **80.63** | **78.02** | **80.88** | **77.70** | **80.62** | **83.31** |
| **OPTDIGITS** | **94.57** | **97.61** | **99.76** | **100.00** | | **99.48** | **99.74** | **100.00** | **99.99** | **99.95** | **99.90** |
| **PENDIGITS** | **99.56** | **71.60** | **98.51** | **98.42** | | **97.58** | **99.32** | **99.97** | **100.00** | **99.52** | **99.83** |
| **SATELLITE** | **51.05** | **70.00** | **75.63** | **72.80** | | **73.43** | **76.28** | **75.61** | **76.08** | **78.65** | **76.33** |
| **SHUTTLE** | **39.34** | **94.15** | **98.04** | **99.56** | | **98.76** | **85.70** | **85.70** | **81.78** | **62.22** | **58.44** |
| **THYROID** | **71.36** | **94.95** | **89.98** | **84.52** | | **87.25** | **81.35** | **87.70** | **90.82** | **83.10** | **80.08** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **Target 1 : 30% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 30** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **78.33** | **73.37** | **78.46** | **84.55** | | **80.12** | **74.86** | **81.83** | **86.73** | **82.52** | **87.58** |
| **MI-F** | **46.54** | **43.70** | **47.01** | **45.33** | | **48.86** | **44.42** | **42.91** | **50.29** | **46.22** | **45.82** |
| **MI-V** | **64.10** | **65.19** | **64.62** | **66.09** | | **70.20** | **68.50** | **69.03** | **68.36** | **68.53** | **69.86** |
| **OPTDIGITS** | **68.44** | **70.13** | **77.14** | **56.40** | | **50.33** | **72.88** | **77.91** | **60.94** | **53.54** | **60.55** |
| **PENDIGITS** | **53.95** | **88.25** | **79.64** | **51.61** | | **77.51** | **51.36** | **77.64** | **77.93** | **91.88** | **81.62** |
| **SATELLITE** | **45.64** | **55.56** | **56.41** | **57.31** | | **63.83** | **59.22** | **57.92** | **64.04** | **60.97** | **59.62** |
| **SHUTTLE** | **90.22** | **79.01** | **98.42** | **98.42** | | **98.90** | **74.18** | **74.18** | **83.67** | **83.67** | **89.60** |
| **THYROID** | **70.09** | **85.00** | **86.15** | **89.39** | | **72.04** | **81.98** | **88.45** | **82.14** | **83.01** | **79.89** |
| **K = 6** | **Target 1 : 30% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 30** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **78.33** | **65.52** | **82.00** | **75.22** | | **85.08** | **86.37** | **87.28** | **89.61** | **90.84** | **89.99** |
| **MI-F** | **46.54** | **42.29** | **42.96** | **49.61** | | **44.07** | **44.08** | **44.99** | **44.23** | **44.80** | **45.01** |
| **MI-V** | **64.10** | **65.07** | **67.96** | **69.50** | | **68.35** | **69.97** | **70.24** | **70.50** | **71.38** | **70.40** |
| **OPTDIGITS** | **68.44** | **76.27** | **82.46** | **80.18** | | **77.00** | **77.53** | **74.34** | **61.61** | **60.52** | **59.60** |
| **PENDIGITS** | **53.95** | **80.45** | **94.67** | **65.05** | | **92.42** | **74.56** | **68.86** | **79.95** | **75.41** | **85.23** |
| **SATELLITE** | **45.64** | **63.51** | **70.19** | **71.32** | | **61.11** | **65.95** | **66.53** | **59.80** | **71.63** | **71.84** |
| **SHUTTLE** | **90.22** | **52.30** | **97.67** | **87.16** | | **96.18** | **85.34** | **85.34** | **95.22** | **94.07** | **89.60** |
| **THYROID** | **70.09** | **92.26** | **87.99** | **80.71** | | **87.97** | **85.33** | **88.10** | **82.57** | **77.62** | **77.99** |
| **K = 9** | **Target 1 : 30% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 30** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **78.33** | **63.60** | **75.31** | **76.28** | | **85.83** | **87.15** | **88.56** | **89.52** | **90.42** | **90.85** |
| **MI-F** | **46.54** | **44.78** | **42.92** | **45.09** | | **42.91** | **46.11** | **44.62** | **42.58** | **44.59** | **45.97** |
| **MI-V** | **64.10** | **64.87** | **69.75** | **68.68** | | **69.34** | **72.94** | **71.33** | **72.98** | **70.71** | **70.12** |
| **OPTDIGITS** | **68.44** | **86.11** | **75.88** | **69.78** | | **82.99** | **73.40** | **54.39** | **66.59** | **56.04** | **58.68** |
| **PENDIGITS** | **53.95** | **74.63** | **97.30** | **93.69** | | **57.93** | **85.62** | **60.36** | **70.66** | **84.85** | **80.93** |
| **SATELLITE** | **45.64** | **63.57** | **63.52** | **61.90** | | **58.48** | **57.60** | **61.23** | **62.20** | **67.37** | **74.57** |
| **SHUTTLE** | **90.22** | **91.85** | **97.67** | **91.16** | | **97.81** | **86.96** | **86.96** | **94.13** | **94.89** | **93.45** |
| **THYROID** | **70.09** | **83.57** | **87.04** | **85.41** | | **90.32** | **80.16** | **81.32** | **83.12** | **76.40** | **79.88** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **Target 1 : 50% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 50** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **70.10** | **67.54** | **69.03** | **74.39** | | **70.58** | **73.08** | **69.46** | **74.79** | **75.48** | **80.34** |
| **MI-F** | **47.19** | **40.70** | **42.21** | **39.98** | | **41.02** | **43.98** | **39.44** | **41.22** | **43.62** | **40.00** |
| **MI-V** | **59.85** | **61.40** | **62.10** | **66.05** | | **61.46** | **64.19** | **60.05** | **63.01** | **66.33** | **66.27** |
| **OPTDIGITS** | **50.49** | **55.40** | **53.28** | **46.22** | | **47.06** | **43.43** | **42.63** | **40.11** | **28.91** | **29.44** |
| **PENDIGITS** | **25.20** | **56.99** | **39.89** | **38.38** | | **39.51** | **53.42** | **31.84** | **60.03** | **34.07** | **44.77** |
| **SATELLITE** | **49.94** | **57.11** | **61.33** | **61.26** | | **53.14** | **52.65** | **55.11** | **50.73** | **57.97** | **54.89** |
| **SHUTTLE** | **86.11** | **58.62** | **73.68** | **73.68** | | **94.35** | **85.09** | **85.09** | **75.22** | **75.22** | **85.95** |
| **THYROID** | **66.38** | **84.78** | **73.13** | **87.70** | | **85.21** | **80.44** | **86.05** | **77.50** | **73.58** | **78.38** |
| **K = 6** | **Target 1 : 50% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 50** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **70.10** | **67.38** | **73.30** | **78.66** | | **79.95** | **82.85** | **78.29** | **80.34** | **83.25** | **83.47** |
| **MI-F** | **47.19** | **43.31** | **37.49** | **43.07** | | **39.76** | **44.67** | **40.03** | **39.91** | **38.13** | **37.65** |
| **MI-V** | **59.85** | **61.77** | **63.19** | **63.37** | | **66.06** | **63.05** | **67.95** | **64.19** | **67.26** | **65.69** |
| **OPTDIGITS** | **50.49** | **72.39** | **89.00** | **70.36** | | **46.83** | **30.67** | **48.14** | **44.05** | **29.17** | **29.76** |
| **PENDIGITS** | **25.20** | **80.88** | **89.79** | **40.76** | | **69.07** | **62.89** | **69.77** | **45.38** | **45.27** | **52.43** |
| **SATELLITE** | **49.94** | **54.91** | **58.18** | **57.88** | | **59.40** | **55.31** | **57.13** | **66.28** | **63.39** | **65.37** |
| **SHUTTLE** | **86.11** | **90.98** | **86.73** | **79.01** | | **91.87** | **57.31** | **57.31** | **85.36** | **83.99** | **87.54** |
| **THYROID** | **66.38** | **80.94** | **86.63** | **90.73** | | **78.72** | **84.80** | **82.02** | **77.65** | **79.16** | **76.58** |
| **K = 9** | **Target 1 : 50% anomaly data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 50** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **70.10** | **60.92** | **69.85** | **73.57** | | **79.50** | **80.46** | **74.91** | **76.46** | **81.95** | **82.45** |
| **MI-F** | **47.19** | **42.21** | **49.32** | **39.35** | | **38.87** | **42.73** | **40.50** | **45.10** | **38.76** | **41.52** |
| **MI-V** | **59.85** | **61.43** | **62.73** | **66.49** | | **65.26** | **65.39** | **65.29** | **67.18** | **68.63** | **65.73** |
| **OPTDIGITS** | **50.49** | **71.20** | **75.15** | **51.40** | | **47.56** | **48.14** | **28.64** | **37.83** | **40.68** | **21.00** |
| **PENDIGITS** | **25.20** | **80.65** | **69.82** | **67.23** | | **52.32** | **57.59** | **69.38** | **46.04** | **38.02** | **53.40** |
| **SATELLITE** | **49.94** | **64.22** | **67.99** | **62.32** | | **56.88** | **65.49** | **59.84** | **52.87** | **58.00** | **60.77** |
| **SHUTTLE** | **86.11** | **94.76** | **84.99** | **88.66** | | **89.45** | **83.88** | **83.88** | **81.84** | **88.31** | **89.27** |
| **THYROID** | **66.38** | **82.51** | **88.11** | **82.44** | | **76.71** | **72.60** | **81.89** | **84.00** | **82.76** | **74.97** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **Target 2 : 50% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 50** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **82.49** | **73.98** | **73.75** | **73.95** | | **75.48** | **80.35** | **80.20** | **79.13** | **79.19** | **78.98** |
| **MI-F** | **84.11** | **74.87** | **74.61** | **86.60** | | **69.99** | **82.70** | **84.74** | **84.51** | **80.18** | **81.02** |
| **MI-V** | **95.33** | **97.19** | **99.20** | **93.42** | | **98.55** | **98.50** | **96.59** | **99.13** | **97.64** | **98.03** |
| **OPTDIGITS** | **99.39** | **99.55** | **99.98** | **99.99** | | **99.96** | **100.00** | **99.95** | **99.99** | **100.00** | **99.90** |
| **PENDIGITS** | **99.84** | **100.00** | **100.00** | **100.00** | | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **SATELLITE** | **84.14** | **93.49** | **97.70** | **97.39** | | **95.34** | **93.31** | **92.90** | **96.73** | **96.01** | **92.87** |
| **SHUTTLE** | **99.86** | **99.97** | **100.00** | **100.00** | | **99.99** | **99.98** | **99.98** | **99.99** | **99.99** | **99.99** |
| **THYROID** | **87.93** | **86.06** | **80.48** | **89.89** | | **89.47** | **89.79** | **86.55** | **88.42** | **83.42** | **85.20** |
| **K = 6** | **Target 2 : 50% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 50** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **82.49** | **67.71** | **73.34** | **75.16** | | **76.82** | **80.65** | **81.46** | **80.99** | **81.25** | **79.41** |
| **MI-F** | **84.11** | **78.26** | **75.26** | **80.06** | | **78.81** | **86.33** | **82.06** | **82.10** | **82.65** | **77.91** |
| **MI-V** | **95.33** | **98.20** | **98.27** | **99.73** | | **99.82** | **99.42** | **98.05** | **99.01** | **99.58** | **98.57** |
| **1OPTDIGITS** | **99.39** | **91.91** | **99.97** | **98.76** | | **99.96** | **99.98** | **100.00** | **99.96** | **100.00** | **100.00** |
| **PENDIGITS** | **99.84** | **93.85** | **93.12** | **99.98** | | **100.00** | **100.00** | **100.00** | **99.98** | **100.00** | **100.00** |
| **SATELLITE** | **84.14** | **98.34** | **96.43** | **95.99** | | **95.78** | **97.87** | **96.08** | **97.88** | **94.19** | **89.63** |
| **SHUTTLE** | **99.86** | **98.53** | **98.76** | **100.00** | | **100.00** | **99.99** | **99.99** | **100.00** | **99.97** | **99.99** |
| **THYROID** | **87.93** | **87.55** | **93.74** | **96.74** | | **92.66** | **93.63** | **89.15** | **89.98** | **82.41** | **83.87** |
| **K = 9** | **Target 2 : 50% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 50** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **82.49** | **92.52** | **73.25** | **79.97** | | **72.97** | **81.75** | **78.65** | **80.68** | **80.78** | **79.48** |
| **MI-F** | **84.11** | **83.52** | **82.07** | **87.54** | | **82.32** | **77.73** | **80.72** | **82.72** | **80.12** | **81.66** |
| **MI-V** | **95.33** | **96.98** | **99.70** | **99.63** | | **99.61** | **99.91** | **99.32** | **98.91** | **99.42** | **99.40** |
| **OPTDIGITS** | **99.39** | **75.47** | **99.99** | **100.00** | | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.84** | **85.27** | **96.92** | **91.50** | | **98.81** | **99.61** | **100.00** | **100.00** | **100.00** | **99.99** |
| **SATELLITE** | **84.14** | **98.40** | **98.67** | **97.34** | | **97.11** | **94.88** | **92.03** | **97.44** | **98.10** | **94.52** |
| **SHUTTLE** | **99.86** | **99.86** | **99.04** | **100.00** | | **100.00** | **99.99** | **99.99** | **100.00** | **99.98** | **99.99** |
| **THYROID** | **87.93** | **89.43** | **92.18** | **94.14** | | **90.43** | **93.58** | **83.07** | **82.65** | **88.64** | **81.01** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **Target 2 : 70% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 70** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **86.66** | **77.81** | **79.05** | **78.83** | | **79.85** | **79.85** | **86.12** | **80.43** | **85.60** | **86.30** |
| **MI-F** | **82.22** | **88.71** | **86.44** | **77.85** | | **76.24** | **80.48** | **82.37** | **79.48** | **79.93** | **79.93** |
| **MI-V** | **95.61** | **92.41** | **98.49** | **96.91** | | **98.79** | **98.01** | **96.67** | **98.85** | **98.74** | **96.67** |
| **OPTDIGITS** | **99.44** | **99.64** | **99.99** | **99.97** | | **100.00** | **99.99** | **100.00** | **100.00** | **99.80** | **100.00** |
| **PENDIGITS** | **99.84** | **99.95** | **100.00** | **100.00** | | **99.92** | **100.00** | **100.00** | **99.99** | **99.96** | **99.96** |
| **SATELLITE** | **84.61** | **94.98** | **95.64** | **92.66** | | **93.43** | **93.04** | **98.00** | **93.83** | **94.20** | **92.61** |
| **SHUTTLE** | **99.97** | **99.97** | **99.99** | **99.99** | | **99.98** | **100.00** | **100.00** | **99.99** | **99.99** | **99.98** |
| **THYROID** | **85.23** | **88.11** | **93.20** | **86.60** | | **88.16** | **83.63** | **94.02** | **81.83** | **78.96** | **86.24** |
| **K = 6** | **Target 2 : 70% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 70** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **86.66** | **71.97** | **78.86** | **78.06** | | **86.23** | **83.68** | **85.94** | **85.83** | **84.93** | **85.03** |
| **MI-F** | **82.22** | **78.69** | **83.77** | **80.54** | | **81.34** | **84.77** | **83.49** | **77.56** | **82.12** | **78.46** |
| **MI-V** | **95.61** | **97.45** | **95.93** | **99.08** | | **99.47** | **99.24** | **98.40** | **98.66** | **98.76** | **98.75** |
| **1OPTDIGITS** | **99.44** | **97.24** | **97.16** | **99.99** | | **99.91** | **100.00** | **99.97** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.84** | **89.00** | **97.99** | **99.99** | | **100.00** | **100.00** | **100.00** | **100.00** | **99.99** | **100.00** |
| **SATELLITE** | **84.61** | **93.15** | **96.07** | **97.06** | | **95.47** | **90.69** | **90.71** | **96.47** | **98.15** | **90.69** |
| **SHUTTLE** | **99.97** | **99.50** | **99.43** | **99.98** | | **100.00** | **99.93** | **99.93** | **99.96** | **99.99** | **100.00** |
| **THYROID** | **85.23** | **89.66** | **94.46** | **76.79** | | **84.06** | **92.43** | **89.19** | **88.63** | **84.51** | **77.52** |
| **K = 9** | **Target 2 : 70% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 70** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **86.66** | **68.11** | **75.46** | **81.30** | | **87.35** | **80.30** | **85.58** | **86.49** | **84.77** | **84.83** |
| **MI-F** | **82.22** | **75.53** | **83.48** | **76.07** | | **82.97** | **81.06** | **80.85** | **80.99** | **79.91** | **78.53** |
| **MI-V** | **95.61** | **95.69** | **98.94** | **98.64** | | **99.90** | **99.39** | **97.47** | **99.60** | **99.13** | **99.06** |
| **OPTDIGITS** | **99.44** | **95.73** | **99.15** | **99.77** | | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.84** | **84.80** | **96.74** | **99.98** | | **100.00** | **99.98** | **100.00** | **99.99** | **99.99** | **99.99** |
| **SATELLITE** | **84.61** | **96.38** | **97.23** | **96.96** | | **98.04** | **95.43** | **97.45** | **98.62** | **97.30** | **95.16** |
| **SHUTTLE** | **99.97** | **99.70** | **99.25** | **100.00** | | **100.00** | **99.99** | **99.99** | **99.97** | **99.99** | **100.00** |
| **THYROID** | **85.23** | **88.02** | **94.73** | **93.09** | | **94.51** | **92.75** | **87.04** | **90.23** | **87.08** | **85.21** |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **K = 3** | **Target 2 : 90% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 90** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **90.39** | **80.59** | **81.31** | **79.73** | | **79.61** | **89.52** | **82.49** | **89.78** | **90.45** | **90.11** |
| **MI-F** | **84.16** | **78.89** | **80.44** | **77.31** | | **78.90** | **82.45** | **82.13** | **82.11** | **80.31** | **79.79** |
| **MI-V** | **96.41** | **97.00** | **94.14** | **98.37** | | **99.14** | **97.78** | **95.96** | **98.28** | **98.41** | **95.51** |
| **OPTDIGITS** | **99.44** | **99.80** | **99.03** | **100.00** | | **99.99** | **99.86** | **99.79** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.83** | **99.93** | **99.94** | **100.00** | | **99.98** | **99.84** | **100.00** | **99.99** | **100.00** | **99.99** |
| **SATELLITE** | **86.01** | **94.92** | **93.74** | **97.18** | | **94.15** | **97.72** | **92.86** | **96.86** | **96.97** | **93.09** |
| **SHUTTLE** | **99.94** | **99.98** | **99.99** | **99.99** | | **99.97** | **100.00** | **100.00** | **99.99** | **99.99** | **99.99** |
| **THYROID** | **83.68** | **85.44** | **85.72** | **88.30** | | **93.10** | **89.25** | **86.35** | **84.14** | **82.90** | **84.24** |
| **K = 6** | **Target 2 : 90% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 90** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **90.39** | **73.87** | **80.78** | **82.30** | | **88.54** | **86.15** | **91.43** | **89.85** | **90.15** | **90.30** |
| **MI-F** | **84.16** | **81.46** | **81.50** | **86.97** | | **78.42** | **82.97** | **78.71** | **79.24** | **80.96** | **76.05** |
| **MI-V** | **96.41** | **98.79** | **98.13** | **99.80** | | **99.79** | **99.05** | **99.06** | **98.90** | **98.74** | **98.78** |
| **1OPTDIGITS** | **99.44** | **97.82** | **99.95** | **99.62** | | **99.44** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.83** | **94.56** | **98.24** | **99.99** | | **99.98** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **SATELLITE** | **86.01** | **95.65** | **97.48** | **96.74** | | **91.46** | **97.49** | **96.40** | **97.06** | **90.35** | **90.79** |
| **SHUTTLE** | **99.94** | **93.84** | **98.88** | **99.94** | | **100.00** | **99.97** | **99.97** | **100.00** | **99.99** | **99.99** |
| **THYROID** | **83.68** | **92.41** | **94.93** | **82.09** | | **88.39** | **91.21** | **88.01** | **87.88** | **84.74** | **75.99** |
| **K = 9** | **Target 2 : 90% training data** | | | | **overlap\_percentage** | | | | | | |
| **Dataset** | **P = 90** | **0.1** | **0.2** | **0.3** | | **0.4** | **0.5** | **0.6** | **0.7** | **0.8** | **0.9** |
| **HRSS** | **90.39** | **68.53** | **77.17** | **79.63** | | **90.99** | **80.46** | **90.81** | **87.26** | **89.59** | **90.21** |
| **MI-F** | **84.16** | **82.46** | **82.42** | **73.73** | | **83.63** | **82.34** | **80.89** | **78.82** | **78.86** | **78.94** |
| **MI-V** | **96.41** | **96.77** | **99.64** | **99.45** | | **99.48** | **99.77** | **99.71** | **99.32** | **99.06** | **98.68** |
| **OPTDIGITS** | **99.44** | **97.46** | **96.63** | **100.00** | | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **PENDIGITS** | **99.83** | **86.02** | **99.16** | **99.98** | | **99.94** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |
| **SATELLITE** | **86.01** | **96.09** | **94.79** | **96.80** | | **93.58** | **93.65** | **98.45** | **87.98** | **89.93** | **90.09** |
| **SHUTTLE** | **99.94** | **99.83** | **99.53** | **99.97** | | **100.00** | **99.96** | **99.96** | **100.00** | **99.99** | **99.99** |
| **THYROID** | **83.68** | **90.15** | **84.47** | **60.26** | | **92.60** | **77.57** | **79.27** | **89.10** | **78.76** | **74.22** |