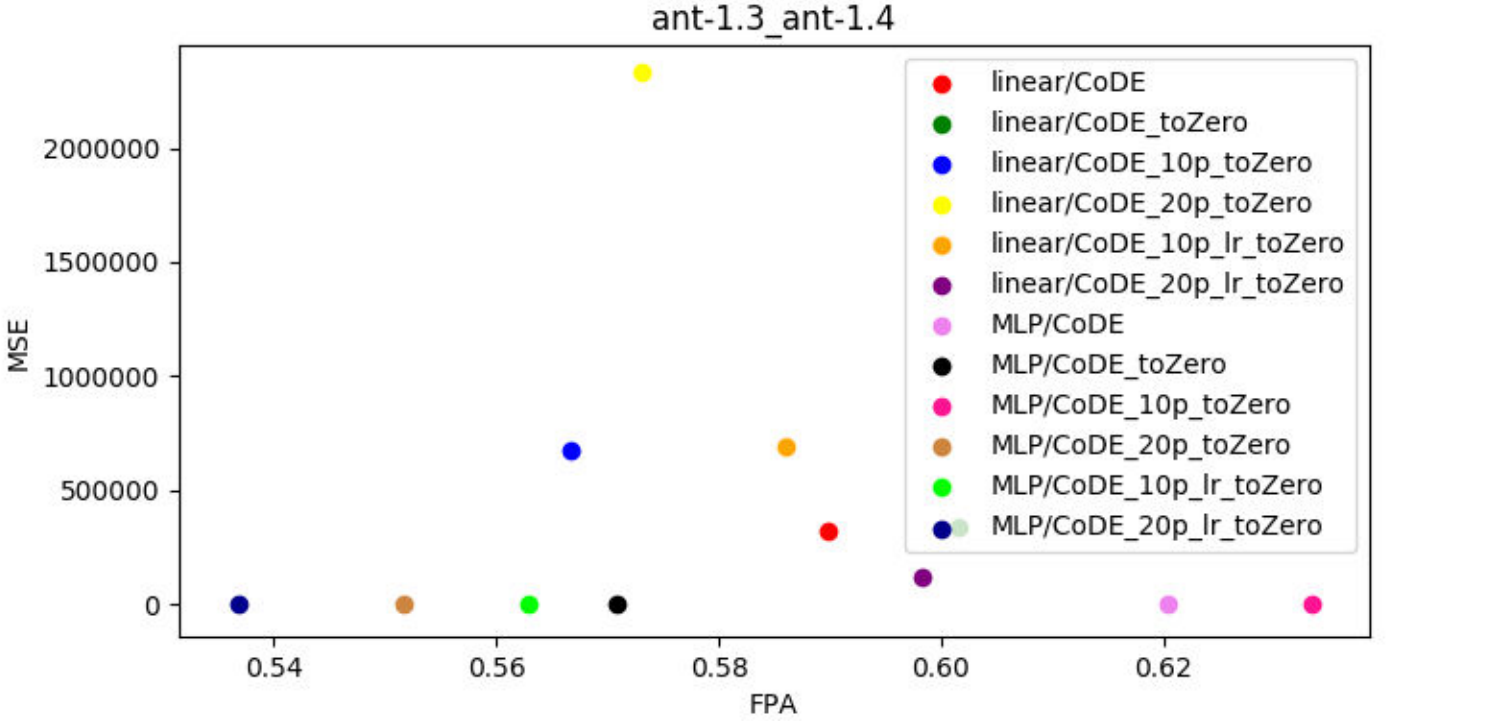
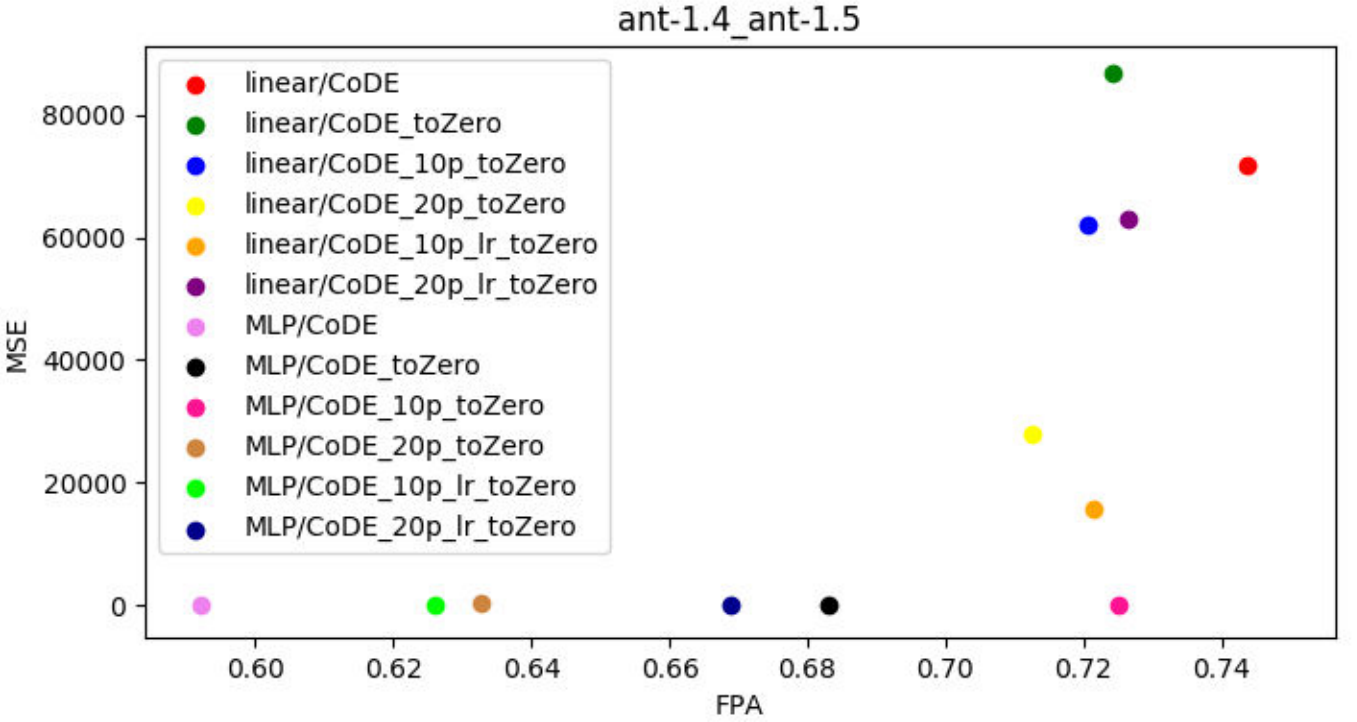
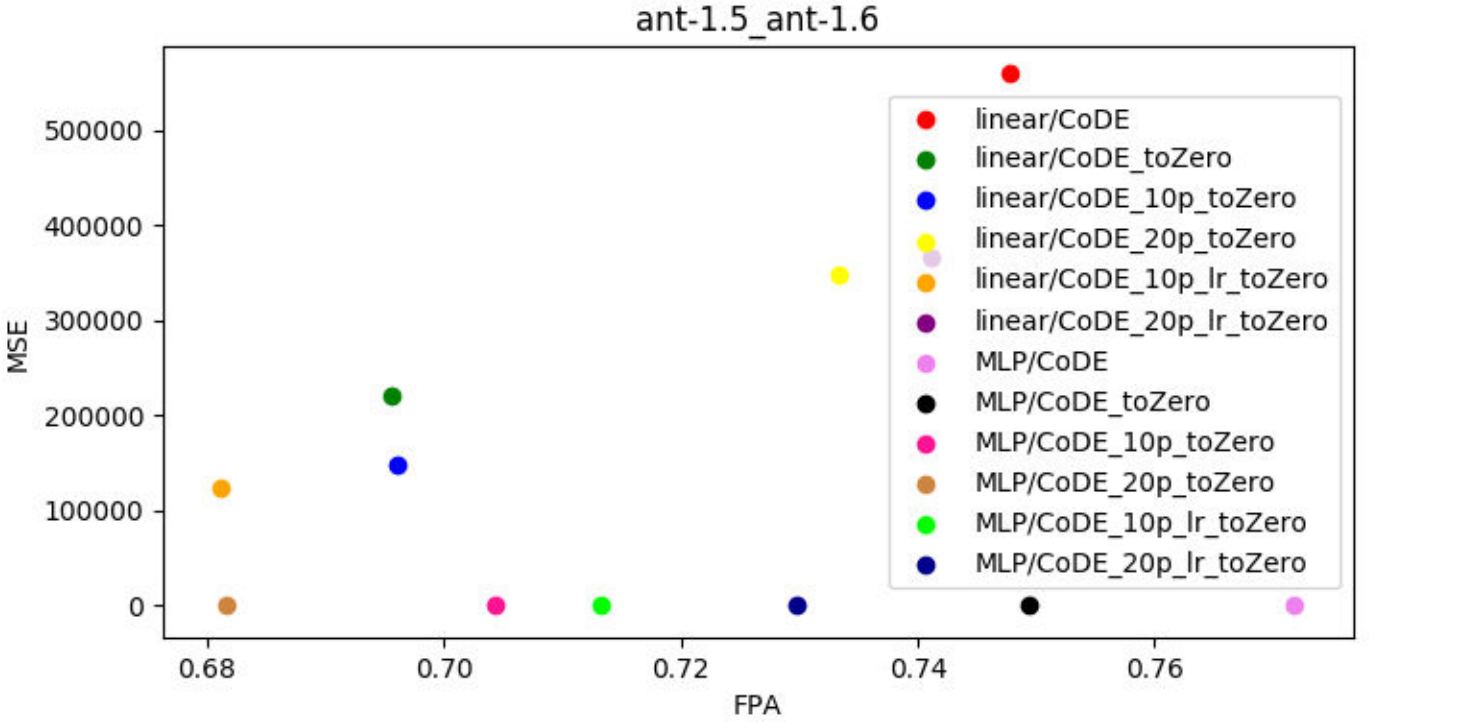
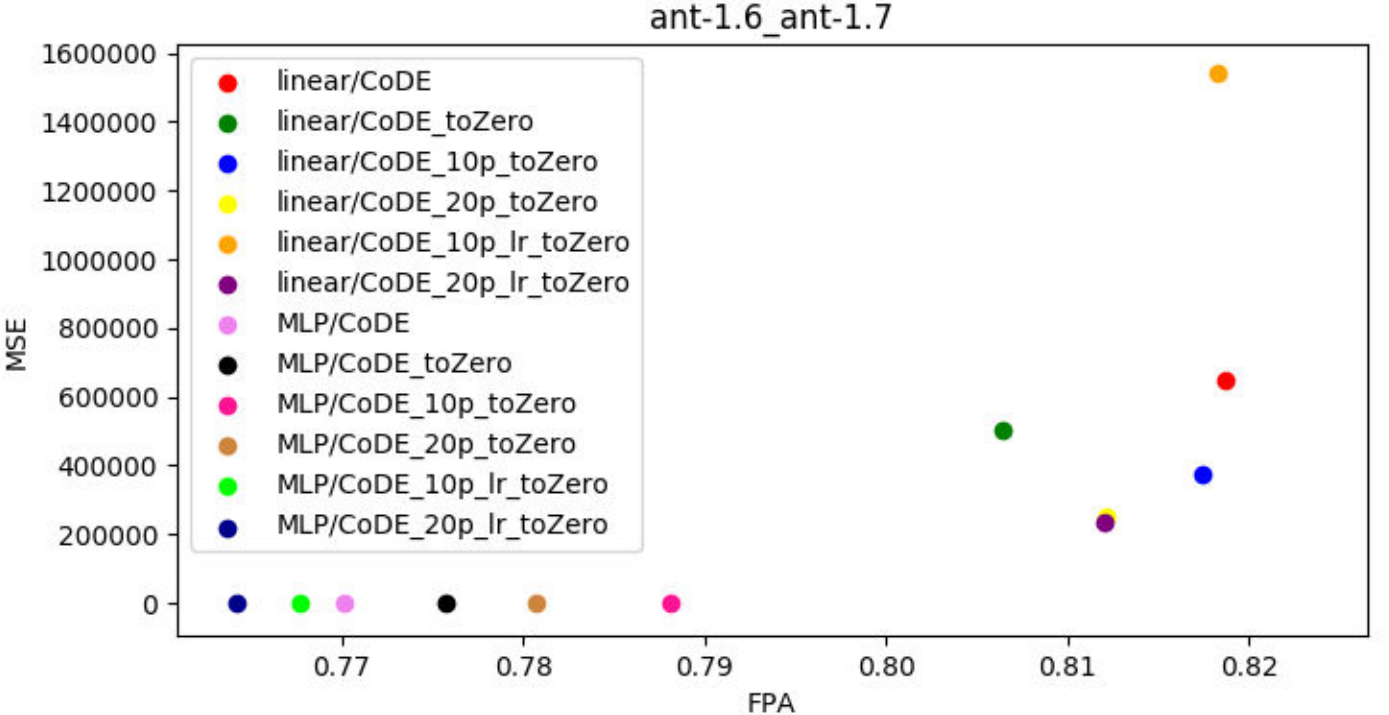
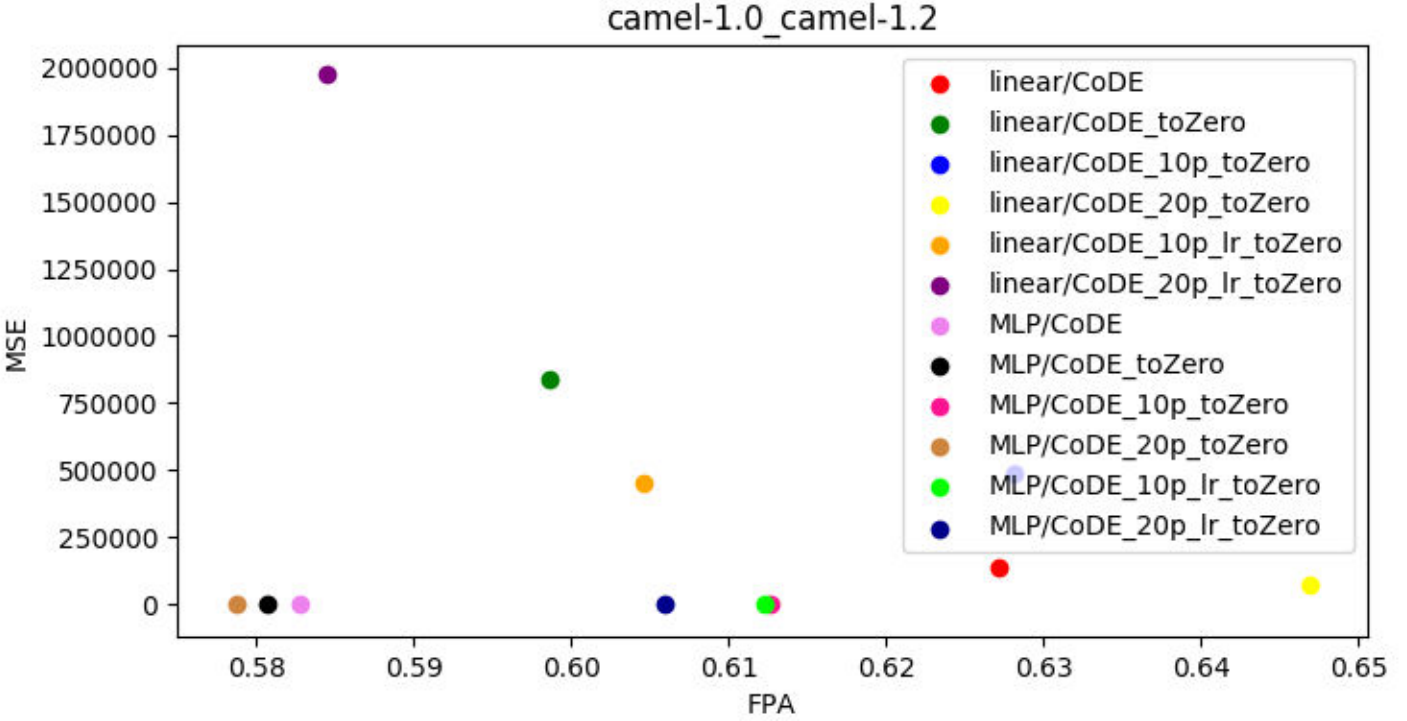
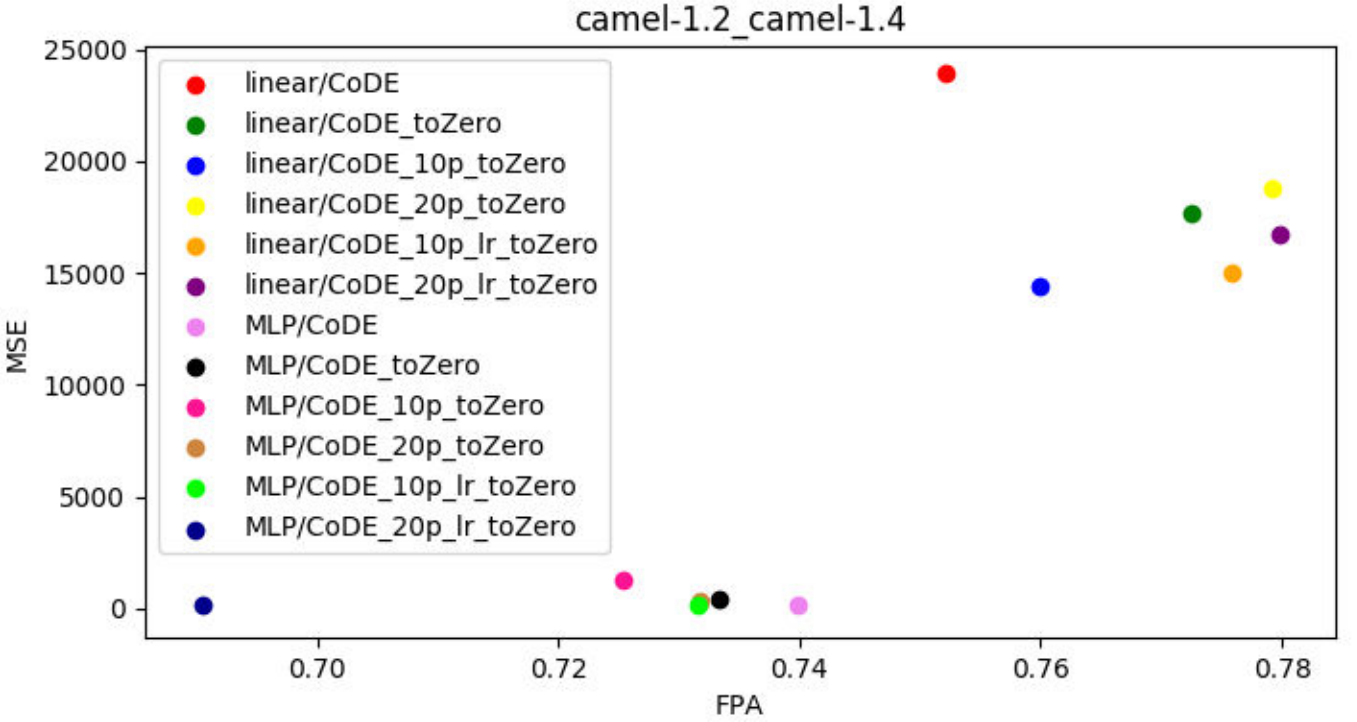

ant-1.3_ant-1.4
MSE
FPA
2000000
1500000
1000000
500000
0
0.54
0.56
0.58
0.60
0.62
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero


ant-1.4_ant-1.5
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
80000
60000
40000
20000
0
0.60
0.62
0.64
0.66
0.68
0.70
0.72
0.74
FPA


ant-1.5_ant-1.6
MSE
FPA
500000
400000
300000
200000
100000
0
0.68
0.70
0.72
0.74
0.76
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero


ant-1.6_ant-1.7
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
0.77
0.78
0.79
0.80
0.81
0.82
FPA


camel-1.0_camel-1.2
2000000
1750000
1500000
1250000
1000000
750000
500000
250000
0
MSE
0.58
0.59
0.60
0.61
0.62
0.63
0.64
0.65
FPA
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero


camel-1.2_camel-1.4
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
25000
20000
15000
10000
5000
0
0.70
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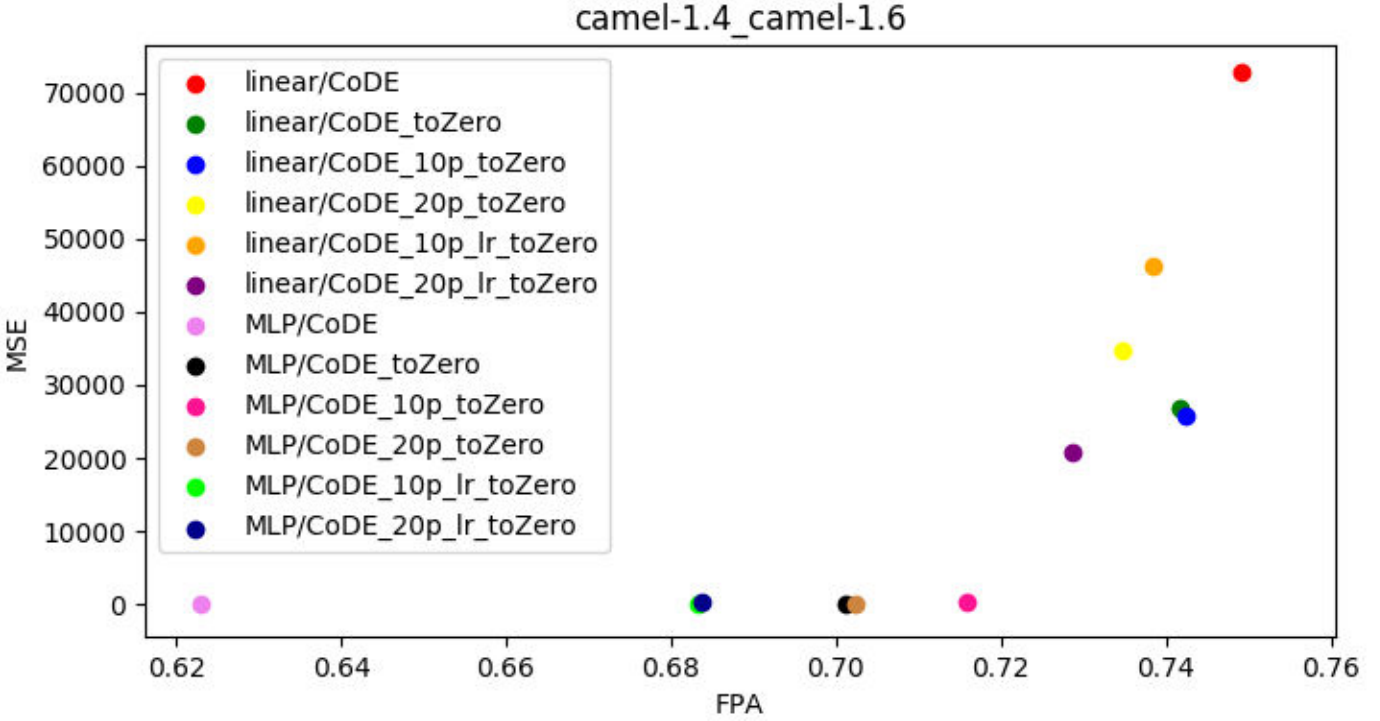
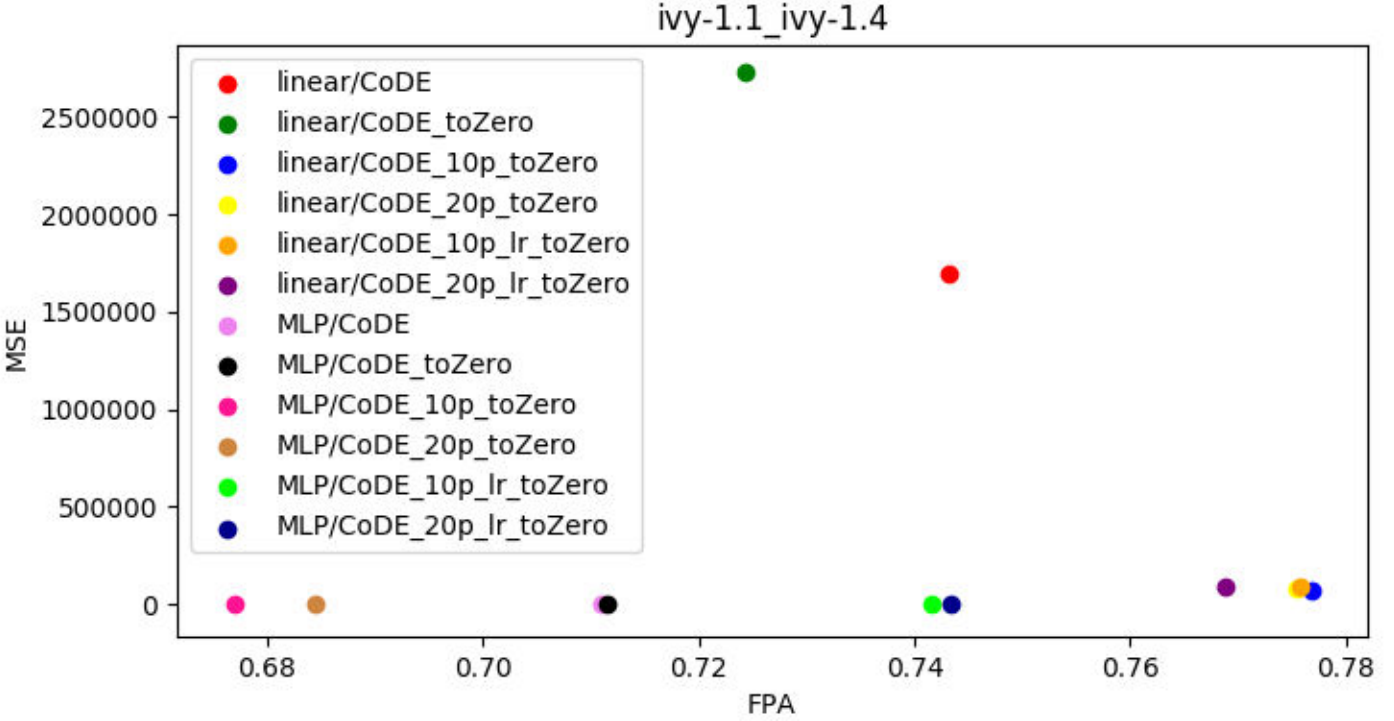
0.76
0.78
FPA


camel-1.4_camel-1.6
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
70000
60000
50000
40000
30000
20000
10000
0
0.62
0.64
0.66
0.68
0.70
0.72
0.74
0.76
FPA


ivy-1.1_ivy-1.4
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
2500000
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1500000
1000000
500000
0
0.68
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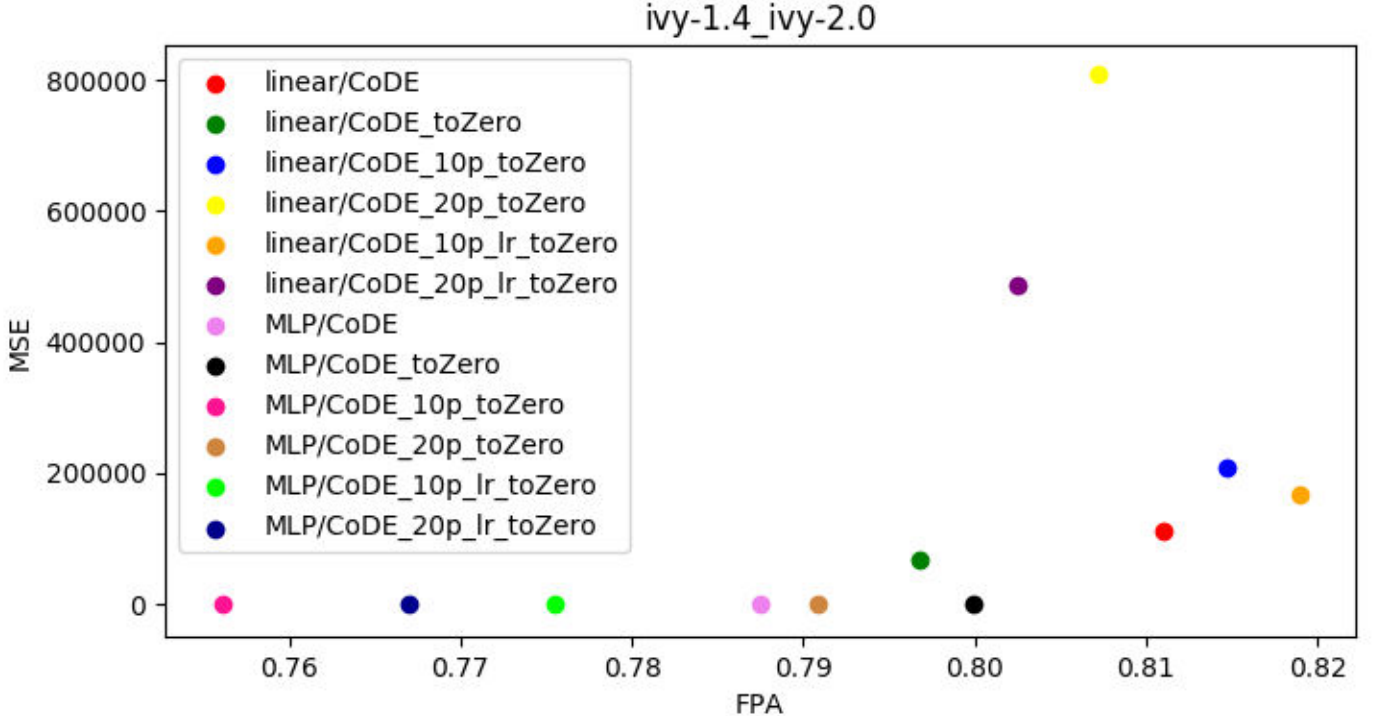
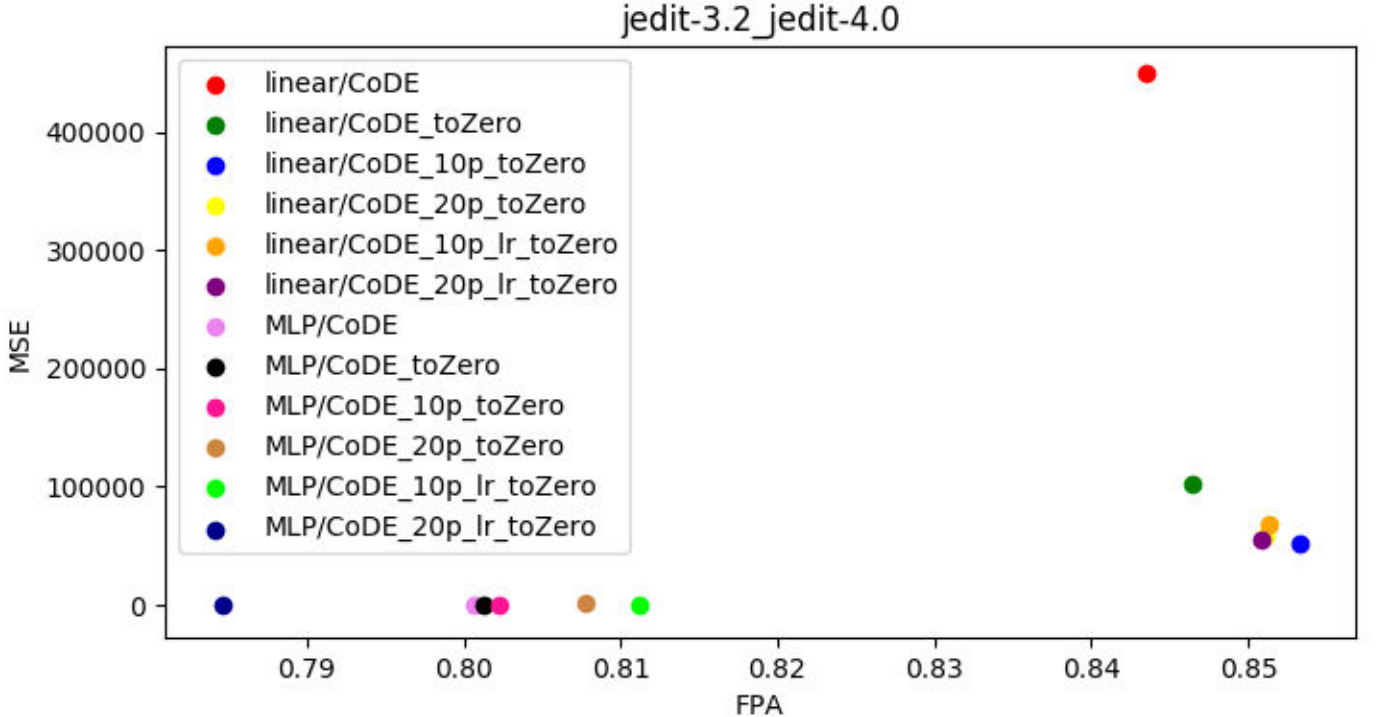
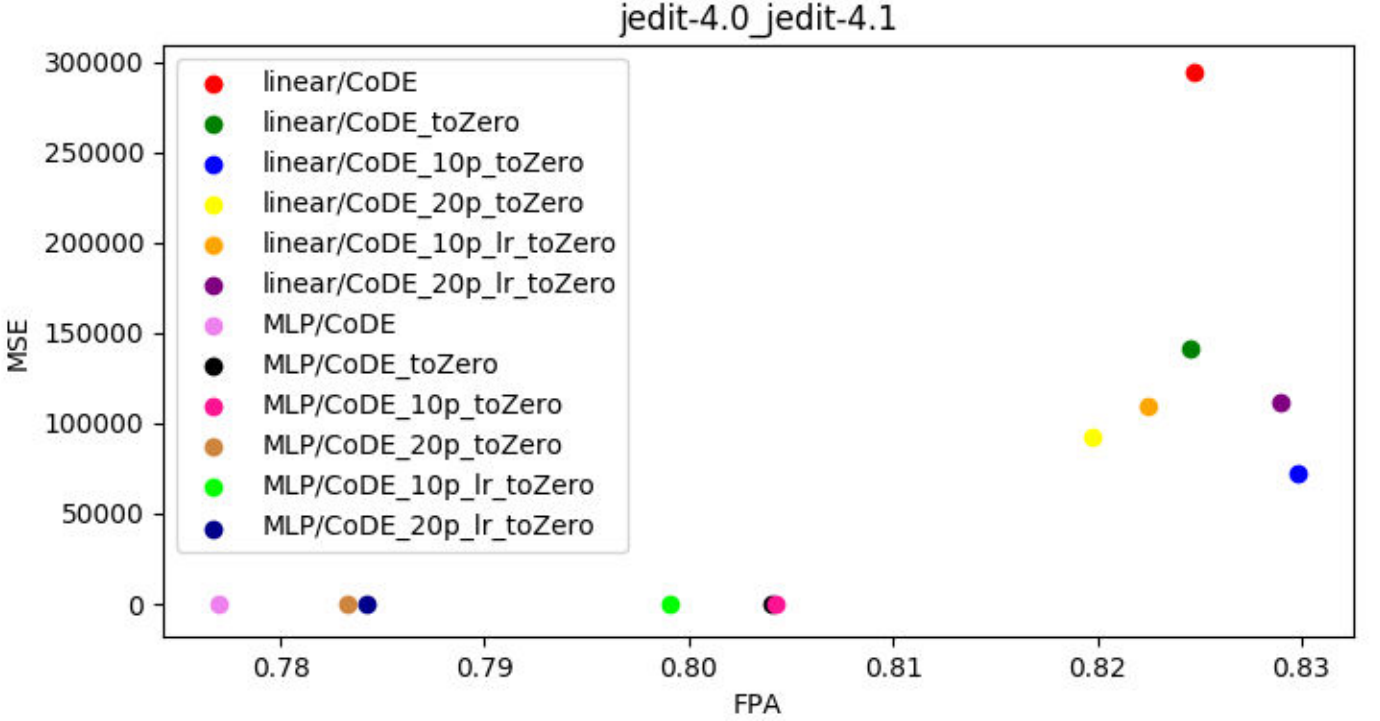
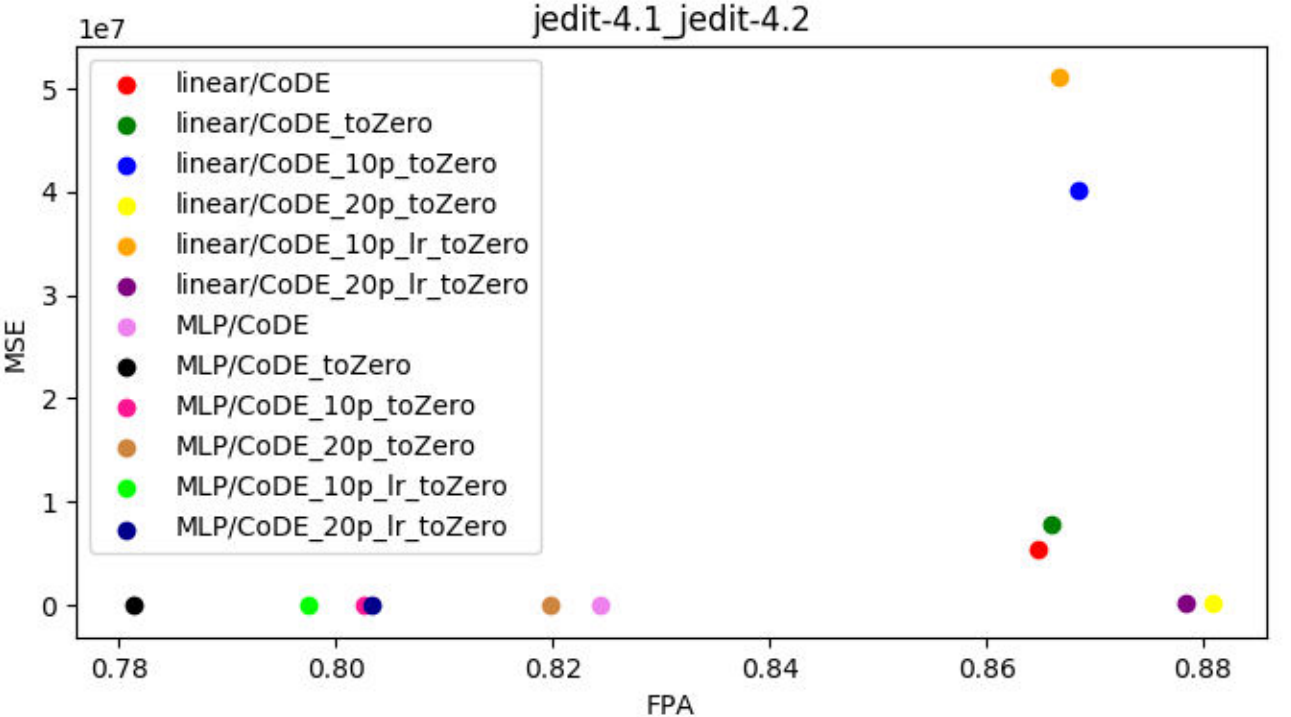
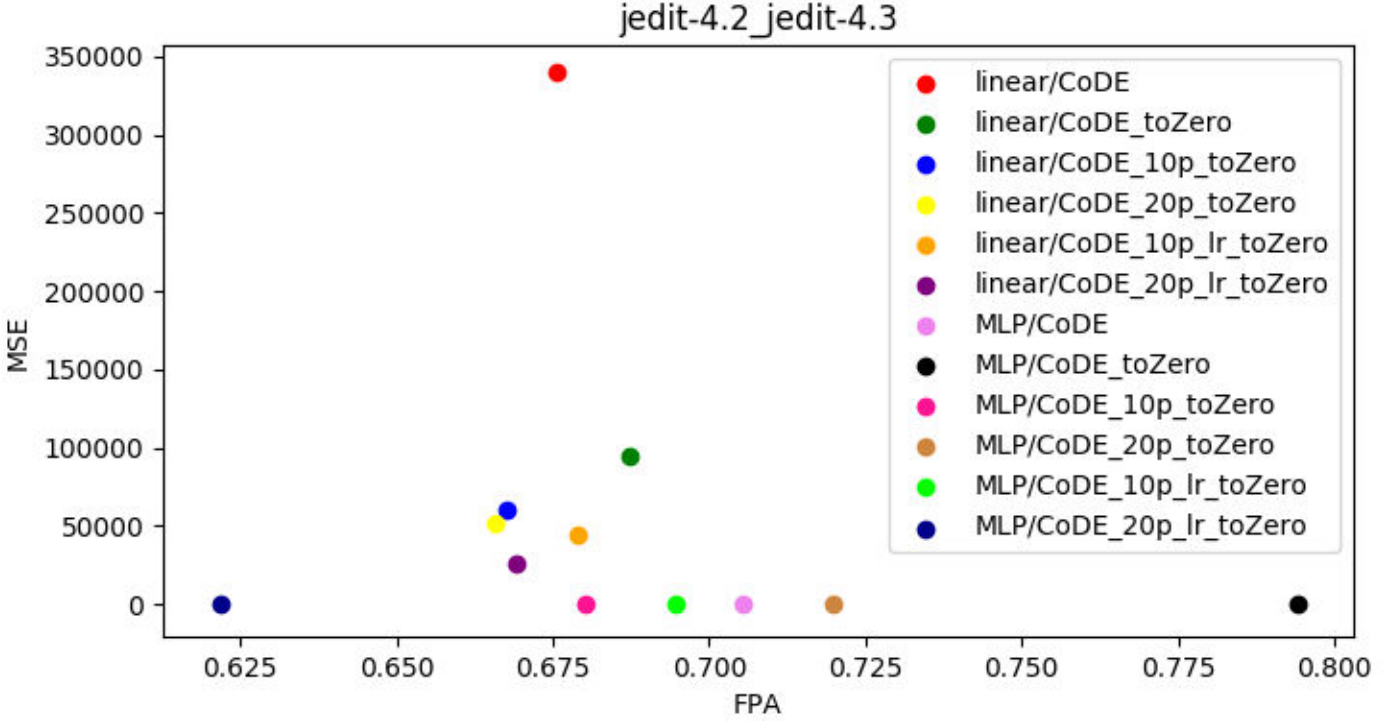
0.76
0.78
FPA

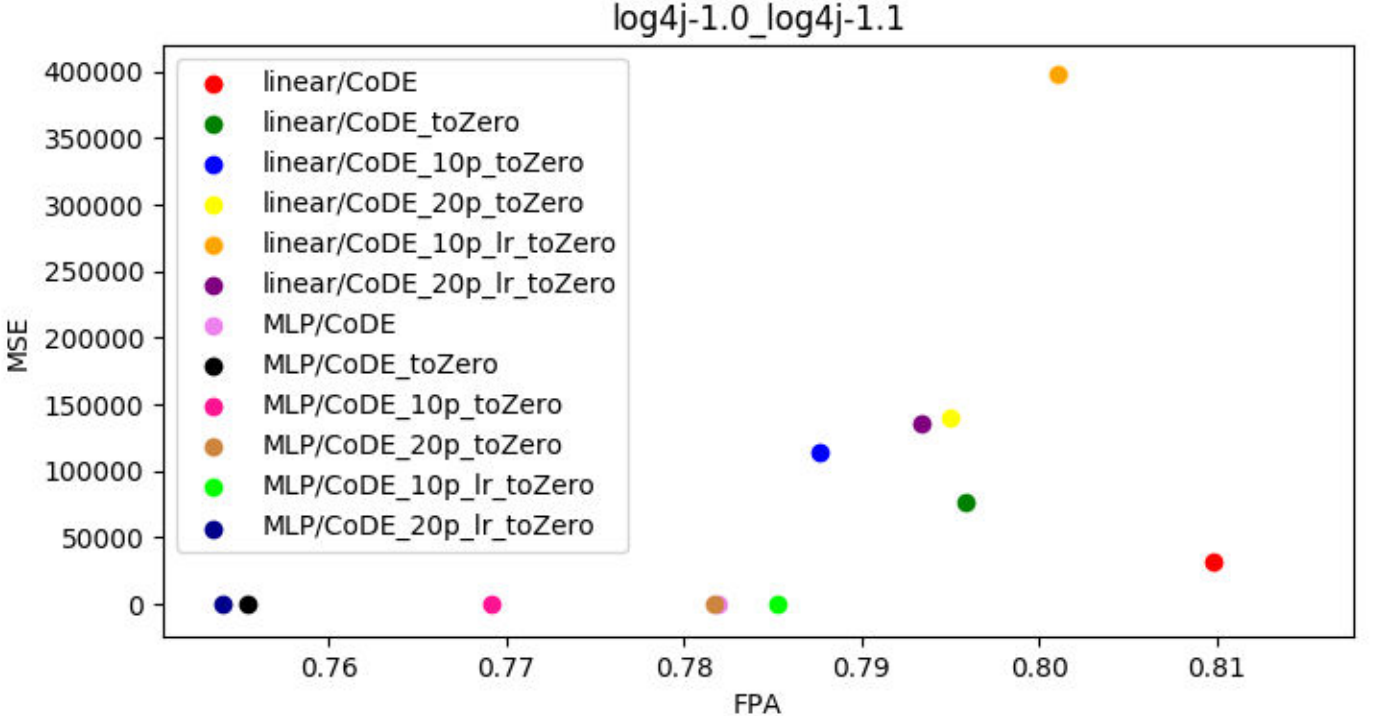

ivy-1.4_ivy-2.0
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
800000
600000
400000
200000
0
0.76
0.77
0.78
0.79
0.80
0.81
0.82
FPA

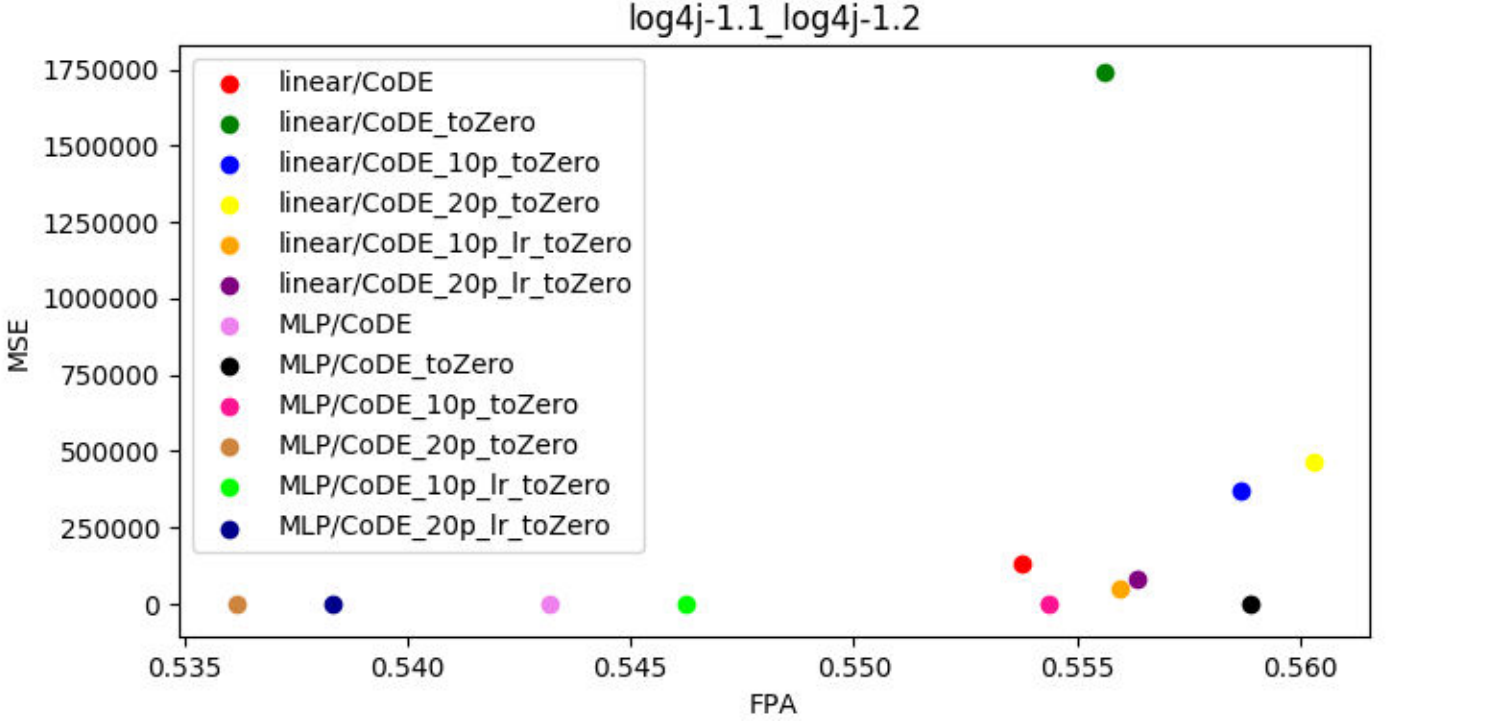

jedit-3.2_jedit-4.0
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
400000
300000
200000
100000
0
0.79
0.80
0.81
0.82
0.83
0.84
0.85
FPA

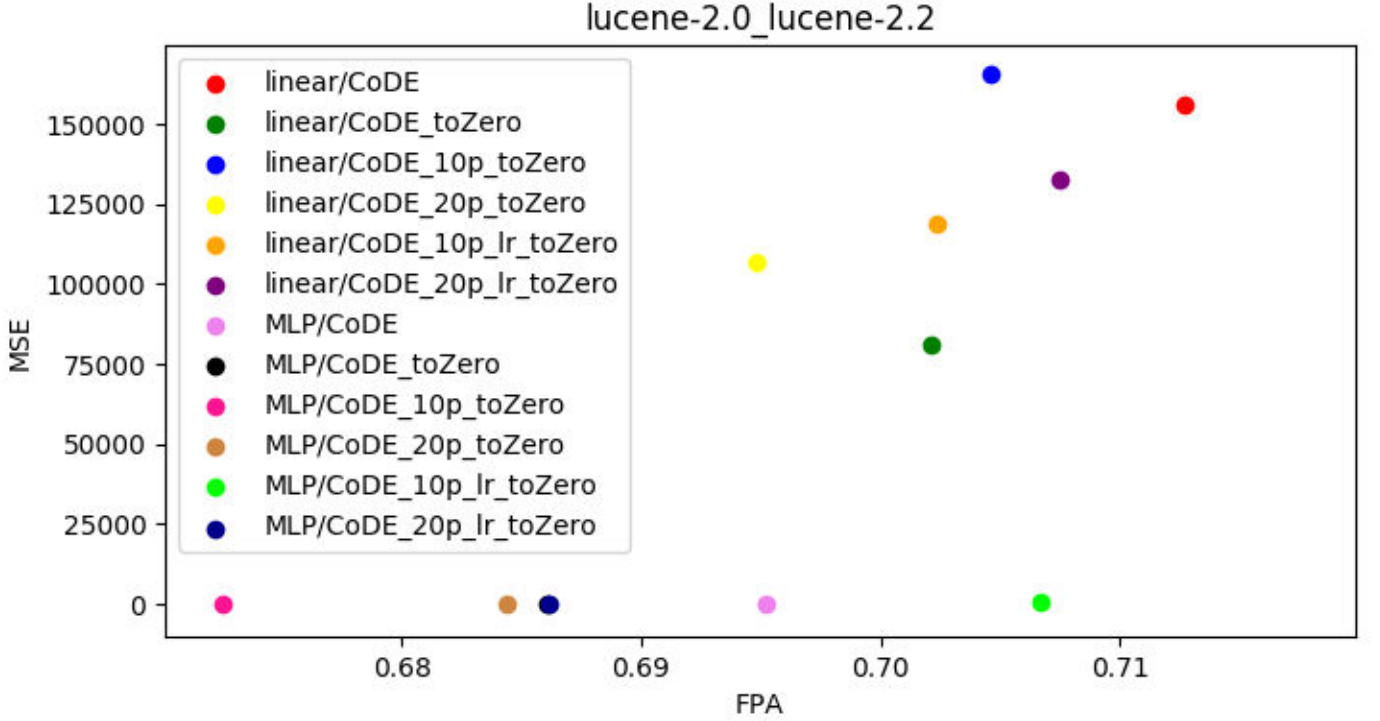

jedit-4.0_jedit-4.1
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
300000
250000
200000
150000
100000
50000
0
0.78
0.79
0.80
0.81
0.82
0.83
FPA

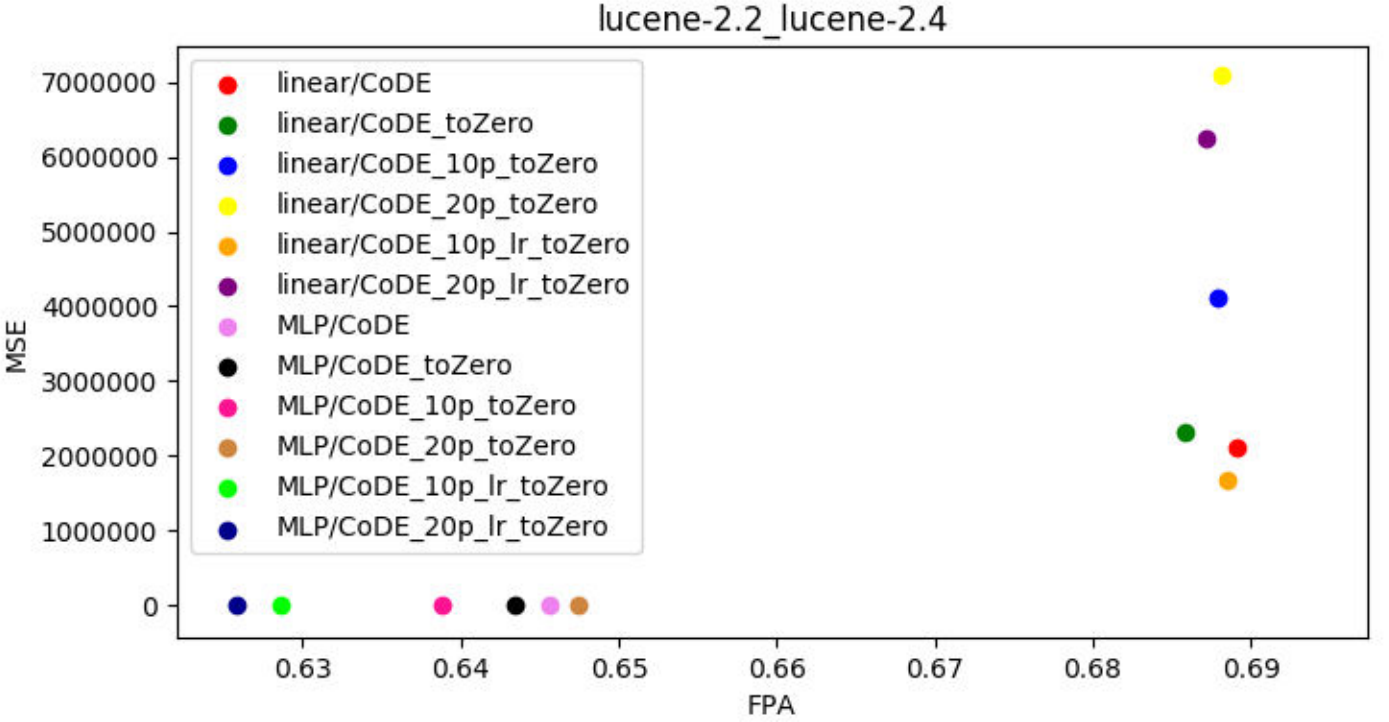

jedit-4.1_jedit-4.2
1e7
MSE
FPA
0
1
2
3
4
5
0.78
0.80
0.82
0.84
0.86
0.88
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero

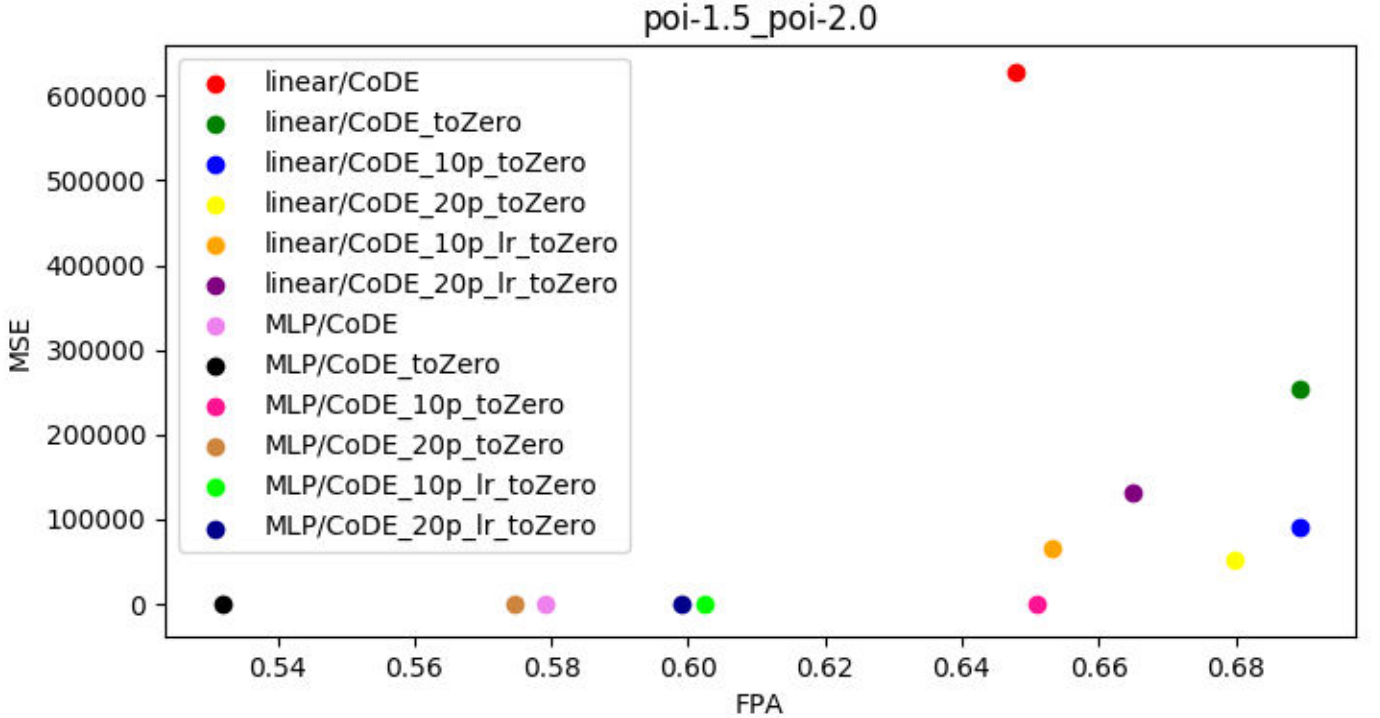

jedit-4.2_jedit-4.3
MSE
FPA
350000
300000
250000
200000
150000
100000
50000
0
0.625
0.650
0.675
0.700
0.725
0.750
0.775
0.800
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero

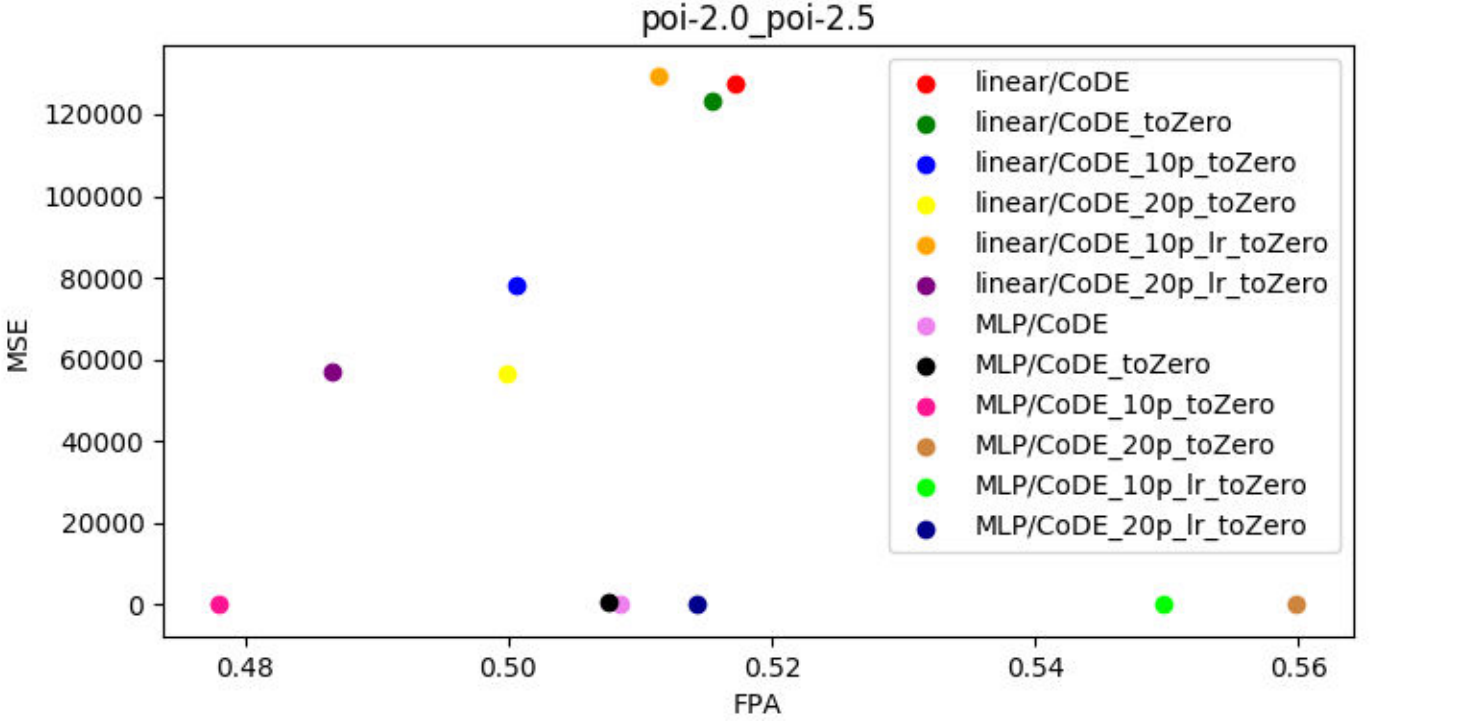

log4j-1.0_log4j-1.1
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
400000
350000
300000
250000
200000
150000
100000
50000
0
0.76
0.77
0.78
0.79
0.80
0.81
FPA

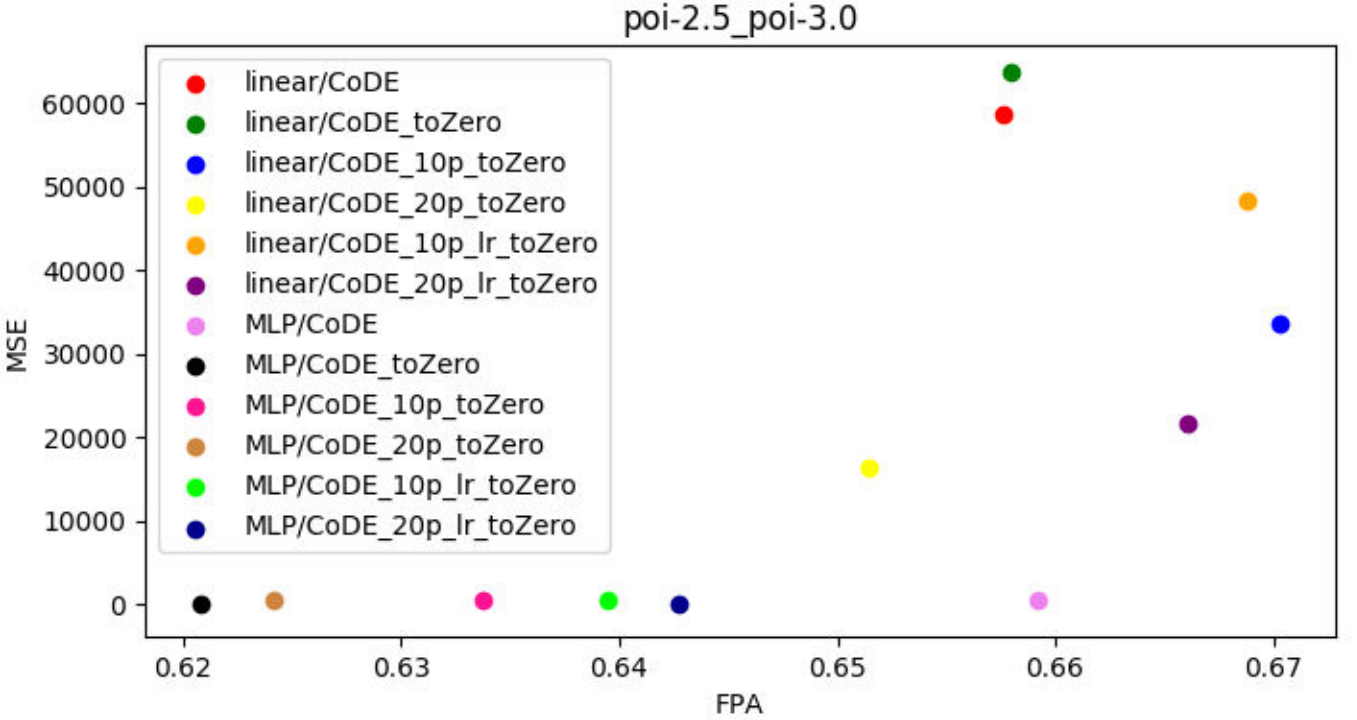

log4j-1.1_log4j-1.2
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
1750000
1500000
1250000
1000000
750000
500000
250000
0
0.535
0.540
0.545
0.550
0.555
0.560
FPA

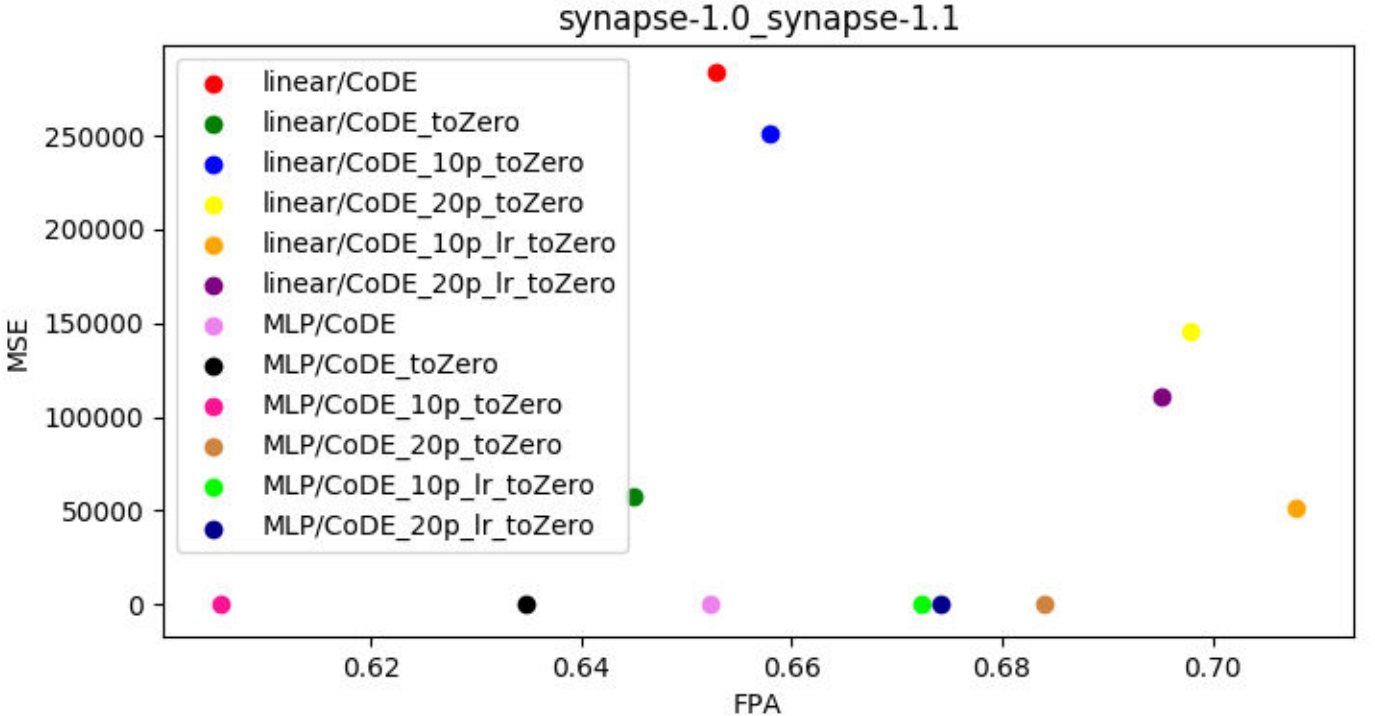

lucene-2.0_lucene-2.2
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
150000
125000
100000
75000
50000
25000
0
0.68
0.69
0.70
0.71
FPA

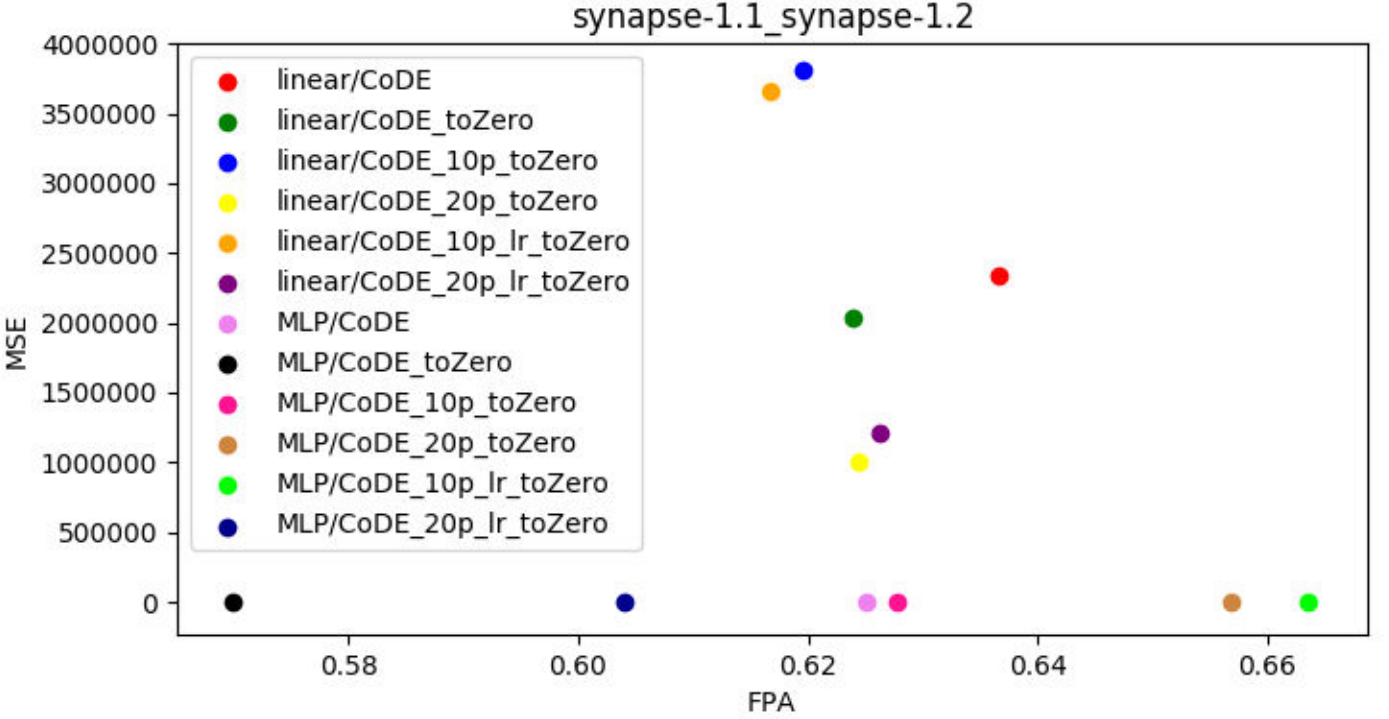

lucene-2.2_lucene-2.4
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
7000000
6000000
5000000
4000000
3000000
2000000
1000000
0
0.63
0.64
0.65
0.66
0.67
0.68
0.69
FPA

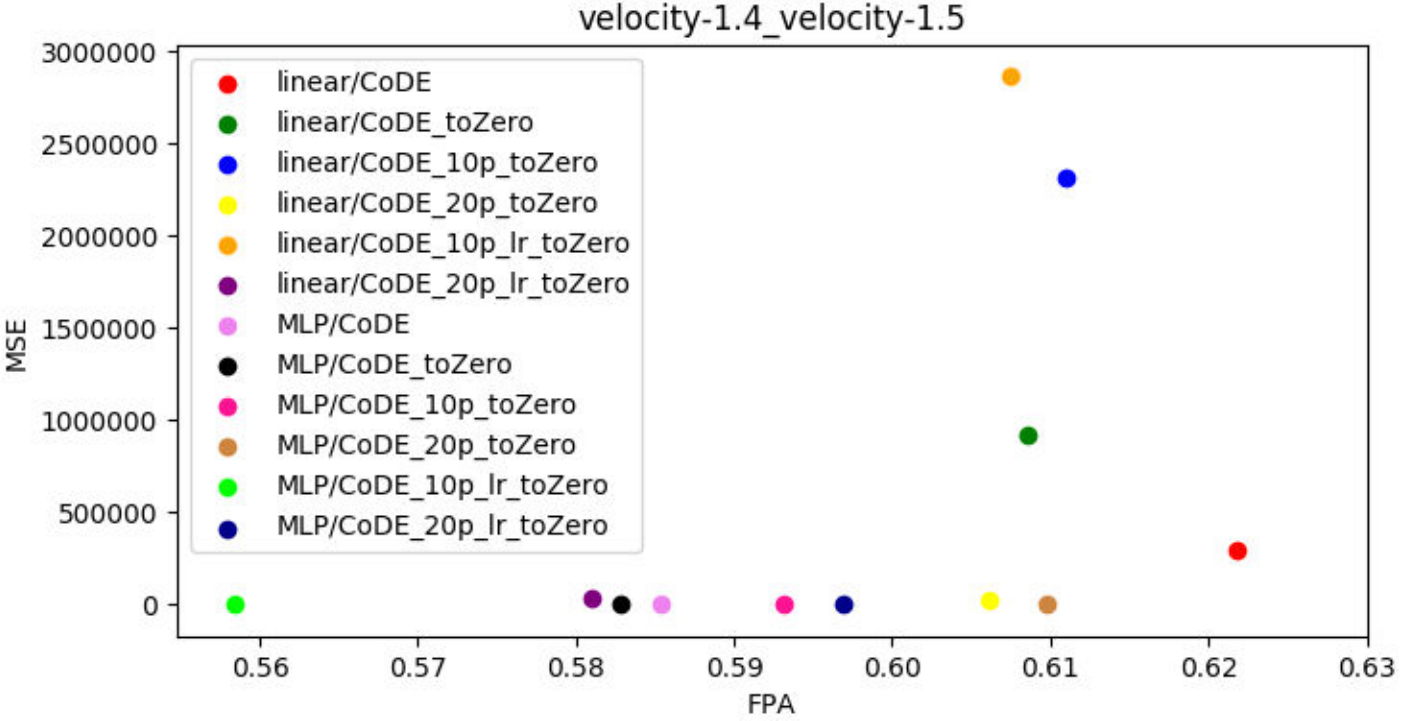

poi-1.5_poi-2.0
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
600000
500000
400000
300000
200000
100000
0
0.54
0.56
0.58
0.60
0.62
0.64
0.66
0.68
FPA

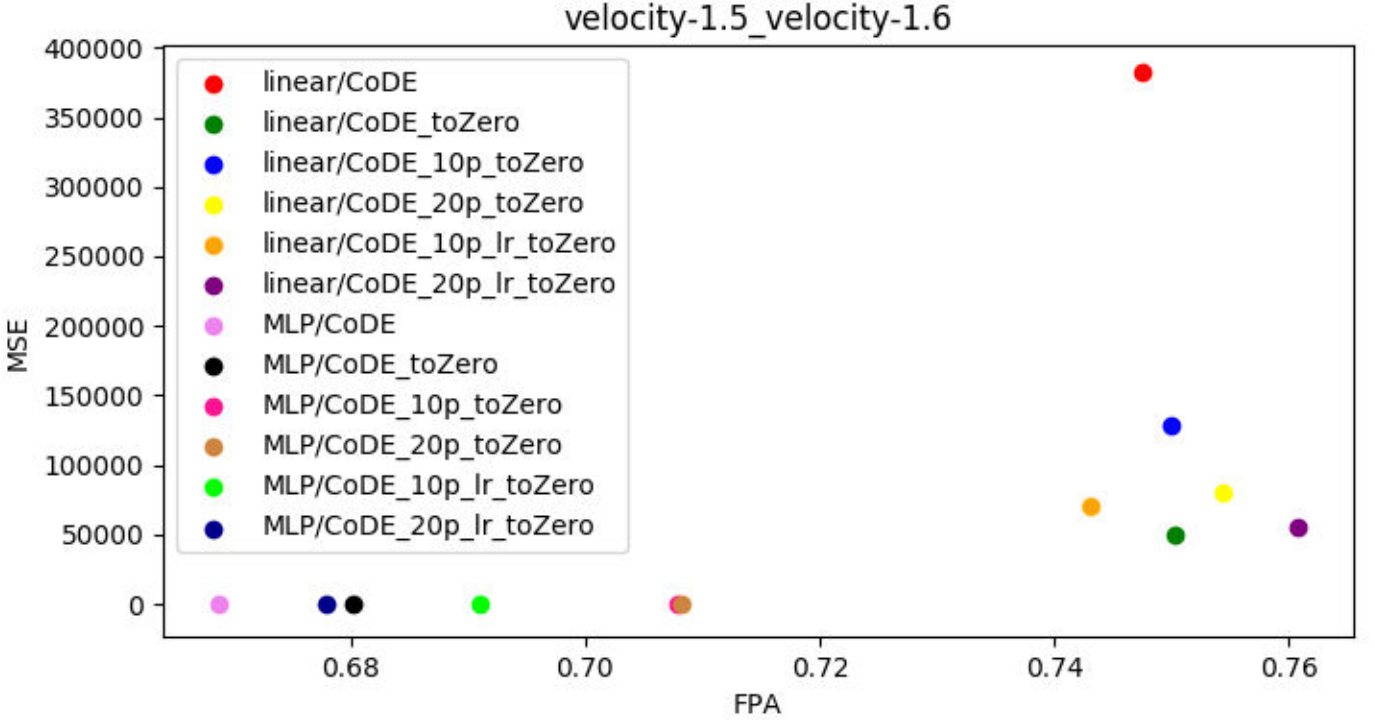

poi-2.0_poi-2.5
MSE
FPA
120000
100000
80000
60000
40000
20000
0
0.48
0.50
0.52
0.54
0.56
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero

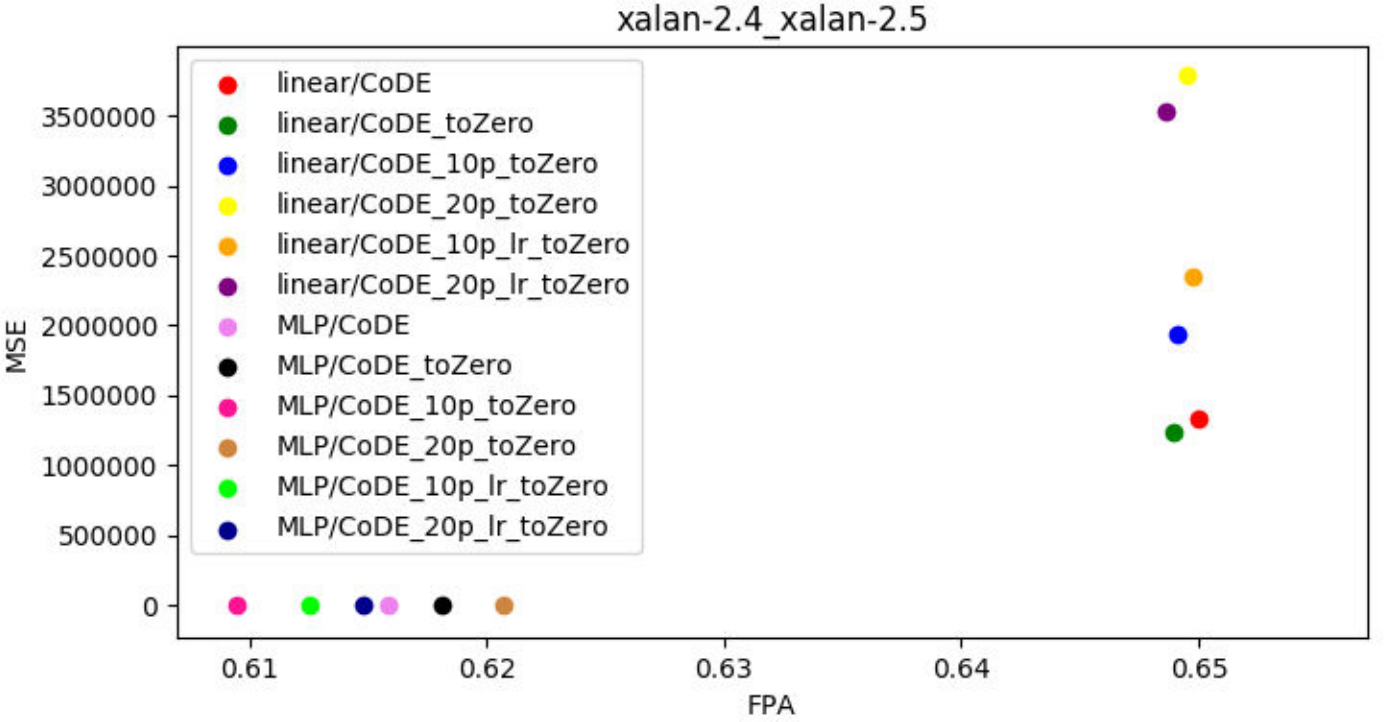

poi-2.5_poi-3.0
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
60000
50000
40000
30000
20000
10000
0
0.62
0.63
0.64
0.65
0.66
0.67
FPA

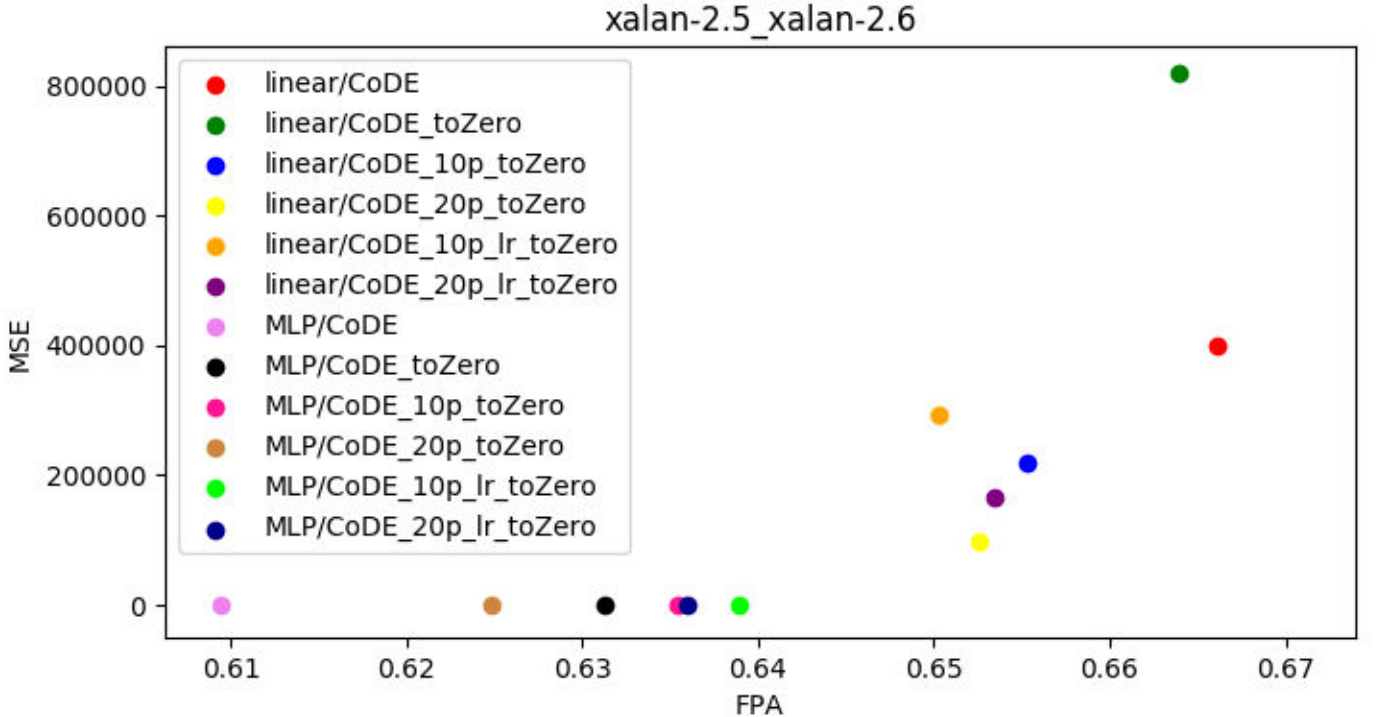

synapse-1.0_synapse-1.1
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
250000
200000
150000
100000
50000
0
0.62
0.64
0.66
0.68
0.70
FPA

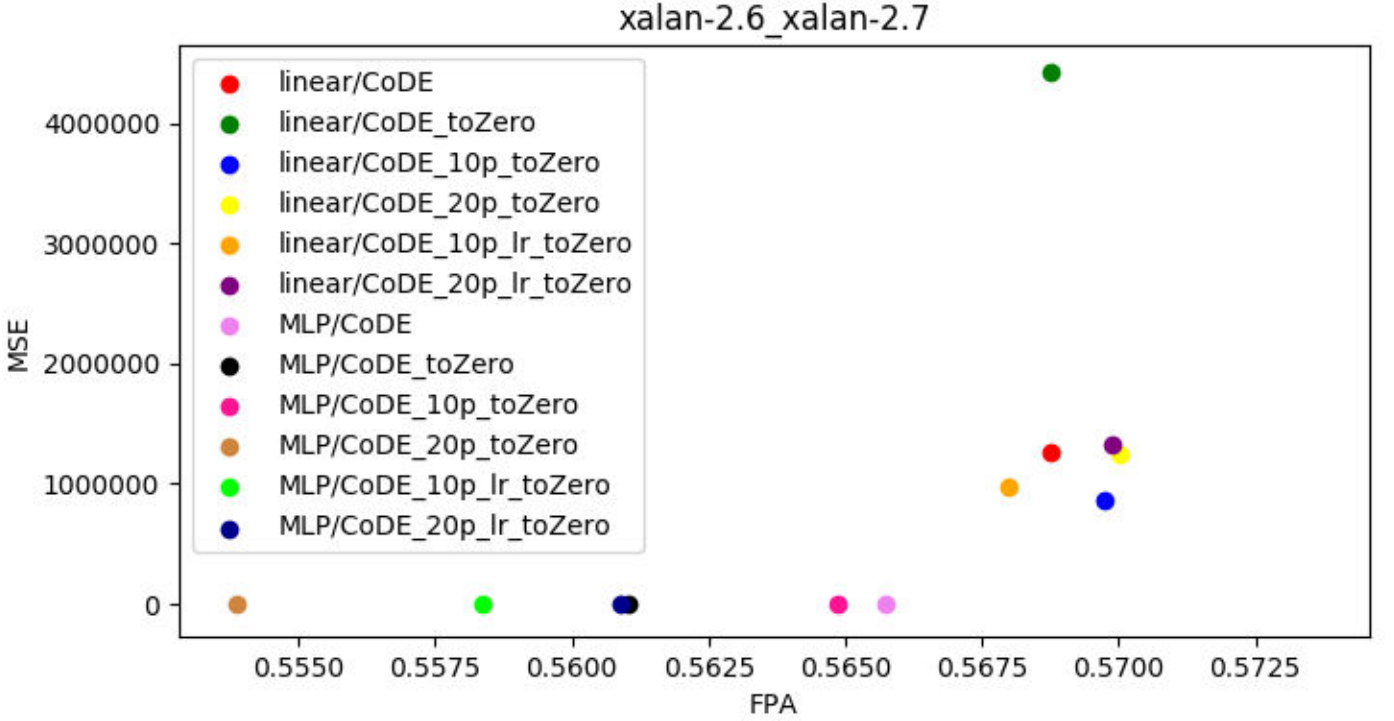

synapse-1.1_synapse-1.2
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
0.58
0.60
0.62
0.64
0.66
FPA

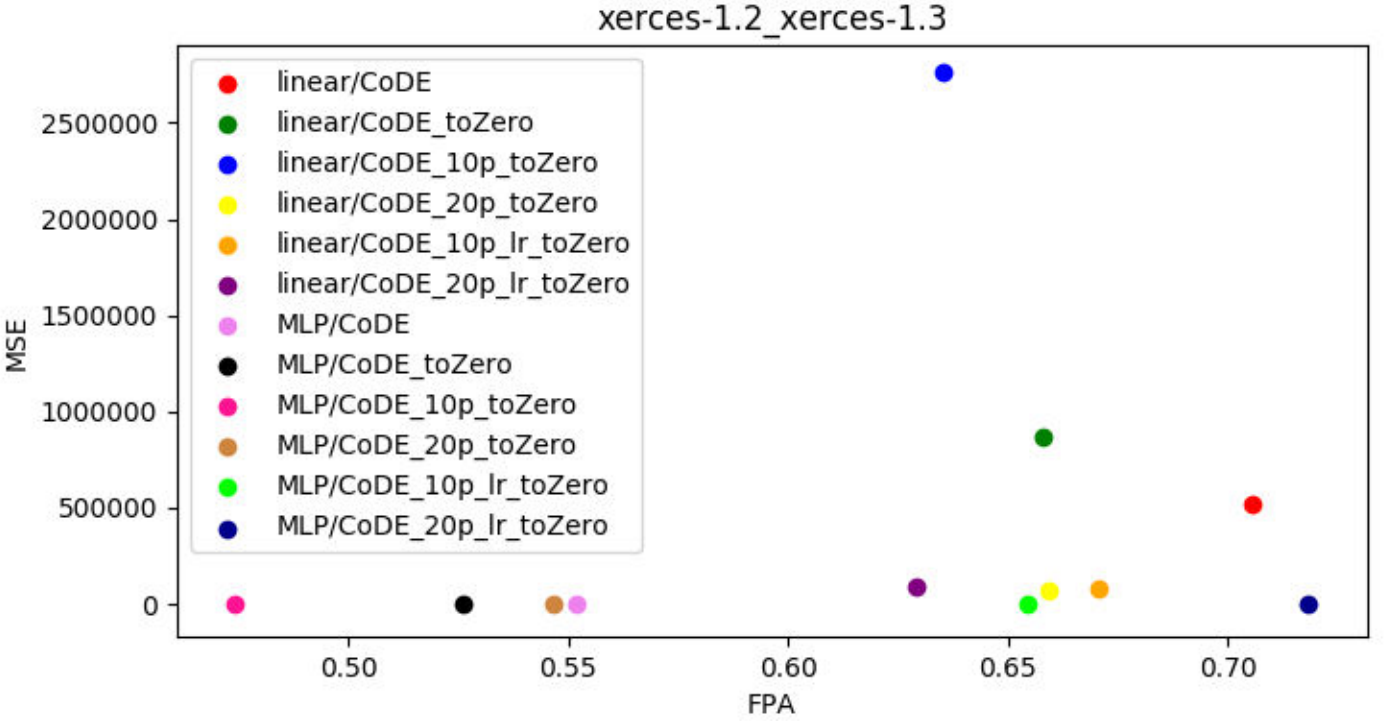

velocity-1.4_velocity-1.5
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
3000000
2500000
2000000
1500000
1000000
500000
0
0.56
0.57
0.58
0.59
0.60
0.61
0.62
0.63
FPA

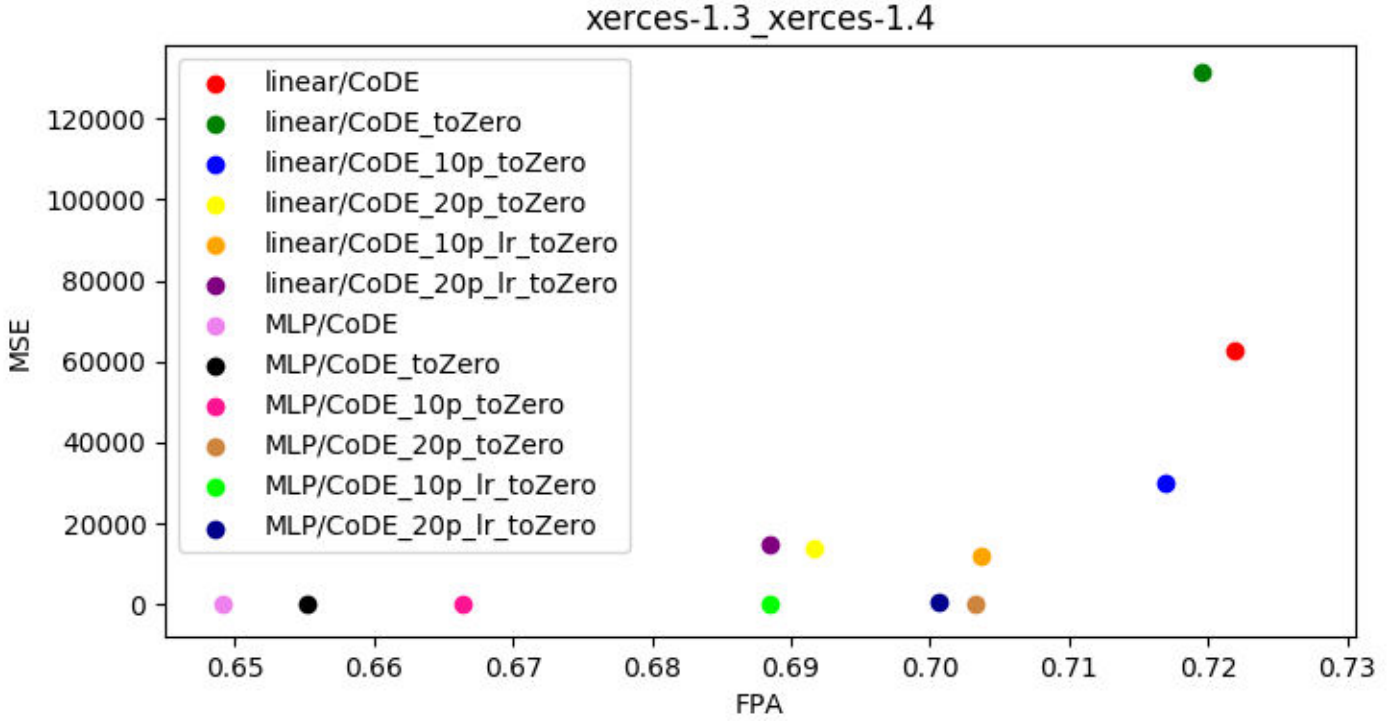

velocity-1.5_velocity-1.6
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
400000
350000
300000
250000
200000
150000
100000
50000
0
0.68
0.70
0.72
0.74
0.76
FPA

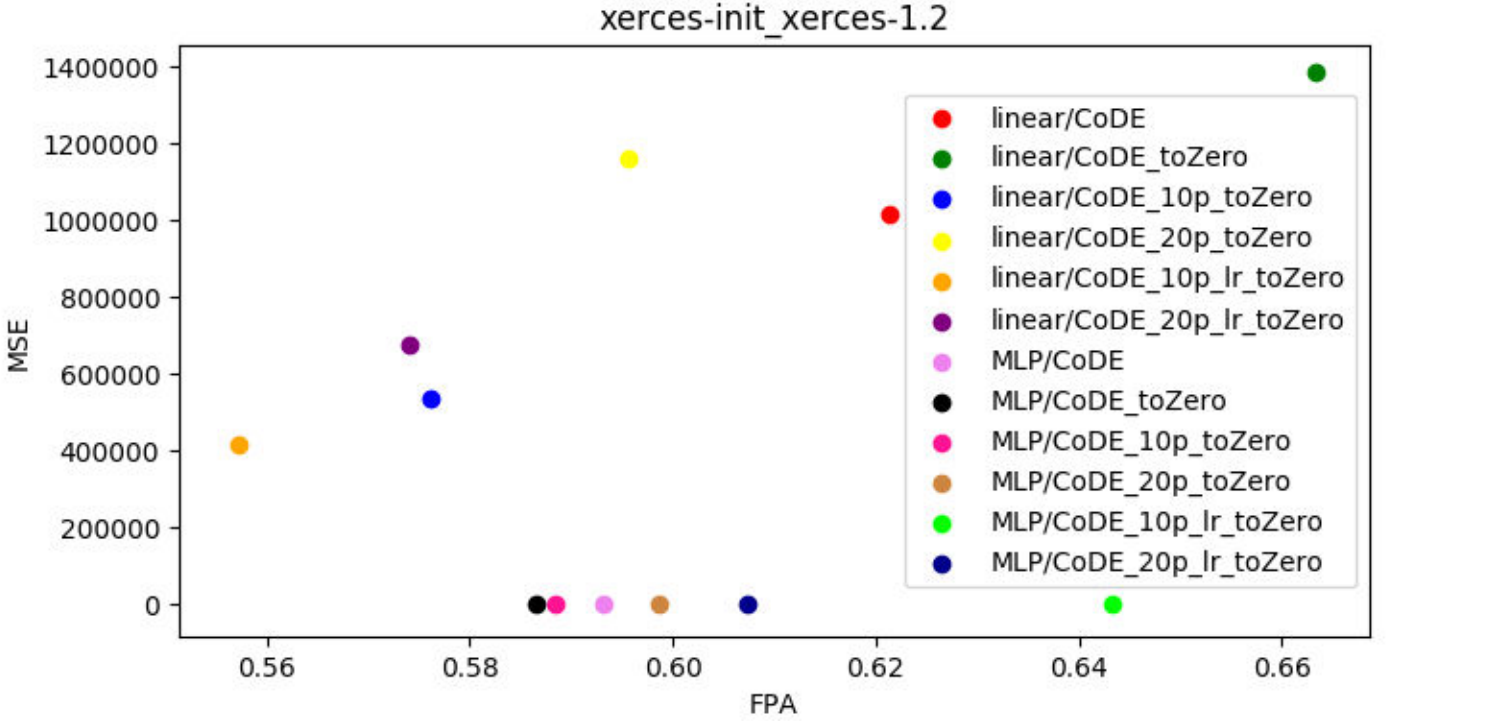

xalan-2.4_xalan-2.5
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
0.61
0.62
0.63
0.64
0.65
FPA


xalan-2.5_xalan-2.6
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
800000
600000
400000
200000
0
0.61
0.62
0.63
0.64
0.65
0.66
0.67
FPA


xalan-2.6_xalan-2.7
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
4000000
3000000
2000000
1000000
0
MSE
0.5550
0.5575
0.5600
0.5625
0.5650
0.5675
0.5700
0.5725
FPA


xerces-1.2_xerces-1.3
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
2500000
2000000
1500000
1000000
500000
0
0.50
0.55
0.60
0.65
0.70
FPA


xerces-1.3_xerces-1.4
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero
MSE
120000
100000
80000
60000
40000
20000
0
0.65
0.66
0.67
0.68
0.69
0.70
0.71
0.72
0.73
FPA


xerces-init_xerces-1.2
1400000
1200000
1000000
800000
600000
400000
200000
0
MSE
0.56
0.58
0.60
0.62
0.64
0.66
FPA
linear/CoDE
linear/CoDE_toZero
linear/CoDE_10p_toZero
linear/CoDE_20p_toZero
linear/CoDE_10p_lr_toZero
linear/CoDE_20p_lr_toZero
MLP/CoDE
MLP/CoDE_toZero
MLP/CoDE_10p_toZero
MLP/CoDE_20p_toZero
MLP/CoDE_10p_lr_toZero
MLP/CoDE_20p_lr_toZero