

Table 1: Performance Results for LogisticRegression\_100samples\_5features\_reg0.01 Problem

Optimizer	Mean Final Value	Std Dev	Best Value	Worst Value	Mean Func Evals	Success Rate (%)	Mean Time (s)
<b>QQN-Bisection-1</b>	3.15e-1	2.67e-12	3.15e-1	3.15e-1	98.5	0.0	0.036
QQN-Bisection-2	3.15e-1	2.84e-12	3.15e-1	3.15e-1	98.5	0.0	0.032
QQN-StrongWolfe	3.15e-1	2.43e-12	3.15e-1	3.15e-1	74.3	0.0	0.031
QQN-CubicQuadraticInterpolation	3.15e-1	2.75e-12	3.15e-1	3.15e-1	91.5	0.0	0.036
QQN-GoldenSection	3.15e-1	2.54e-12	3.15e-1	3.15e-1	307.2	0.0	0.067
L-BFGS-MoreThuente	3.15e-1	2.25e-5	3.15e-1	3.15e-1	106.7	0.0	0.034
L-BFGS-Aggressive	3.15e-1	1.24e-4	3.15e-1	3.16e-1	1776.5	0.0	0.508
L-BFGS-Conservative	3.15e-1	5.83e-11	3.15e-1	3.15e-1	559.5	0.0	0.185
L-BFGS-Limited	3.15e-1	1.97e-5	3.15e-1	3.15e-1	3043.5	0.0	0.886
L-BFGS	3.16e-1	7.17e-4	3.15e-1	3.19e-1	2673.8	0.0	0.796
GD-AdaptiveMomentum	3.15e-1	4.41e-9	3.15e-1	3.15e-1	426.1	0.0	0.232
GD-Momentum	3.15e-1	3.78e-7	3.15e-1	3.15e-1	1668.0	0.0	0.901
GD-Nesterov	3.15e-1	3.66e-7	3.15e-1	3.15e-1	1668.0	0.0	0.902
Adam-Fast	3.16e-1	1.09e-4	3.16e-1	3.16e-1	90.8	0.0	0.033
Adam-WeightDecay	3.22e-1	1.09e-3	3.20e-1	3.24e-1	2502.0	0.0	0.890
GD-WeightDecay	3.27e-1	3.54e-4	3.26e-1	3.27e-1	1668.0	0.0	0.905
GD	3.77e-1	2.81e-3	3.72e-1	3.81e-1	1668.0	0.0	0.897
Adam-AMSGrad	4.05e-1	9.76e-3	3.87e-1	4.23e-1	2502.0	0.0	0.891
Adam	4.02e-1	9.33e-3	3.92e-1	4.21e-1	2502.0	0.0	0.889
Adam-Robust	4.32e-1	1.22e-2	4.13e-1	4.60e-1	2502.0	0.0	0.892
Trust Region-Conservative	4.24e-1	2.86e-3	4.20e-1	4.28e-1	86.6	0.0	0.025
Trust Region-Adaptive	6.95e-1	3.03e-2	6.37e-1	7.46e-1	5.0	0.0	0.002
Trust Region-Precise	6.78e-1	2.08e-2	6.48e-1	7.23e-1	5.5	0.0	0.002
Trust Region-Aggressive	6.98e-1	2.53e-2	6.53e-1	7.51e-1	5.0	0.0	0.002
Trust Region-Standard	6.98e-1	3.18e-2	6.55e-1	7.75e-1	5.0	0.0	0.002