Input					Hyperparameters			Matrix Factorization						Backpropagation					
Dataset Name	Num Datapoints (Test + Train)	Input feature dimension	Output dimension	Hidden layer dimension	Threshold	mu	Converged @ Iteration	Train MAE	Train RMSE	Test MAE	Test RMSE	Time (sec)	Converged @ Iteration	Train MAE	Train RMSE	Test MAE	Test RMSE	Time (sec)	
Boston	506 (127 + 379)	13	1	100	1.00E-03	1	27	3.312524233	4.874624188	3.121743593	4.837774502	0.436435113	15000 (maxed out)	2.830437387	3.884546904	2.858037565	4.35589052	10.34649376	
Linnerud	20 (5 + 15)	3	3	2	1.00E-03	1	73	35.98378094	53.65476691	27.56317857	39.34062265	0.021515525	7500	35.89035094	53.68246973	26.99021784	39.4277716	2.449377804	
Real estate valuation	414 (104 + 310)	6	1	12	1.00E-03	1	14	6.258258728	9.031734978	5.942754256	8.258545372	0.02000243599	15000 (maxed out)	7.214100389	9.583968762	7.269482704	9.538061798	6.476510035	
Energy efficiency	768 (192 + 576)	8	2	6	1.00E-03	1	29	2.215426084	3.096988204	2.257468864	3.109990419	0.04889618701	15000 (maxed out)	3.140084821	3.963071908	3.083862183	3.902640598	6.607297865	
Stock portfolio performance	315 (79 + 236)	6	6	9	1.00E-03	1	10	0.09827888005	0.1230248584	0.1005804991	0.1247905116	0.01333570399	50	0.09958706117	0.1248680185	0.1012807464	0.1260942718	0.02123514	
Concrete Slump Test	103 (26 + 77)	7	3	4	1.00E-03	1	126	6.08568884	8.198571716	6.404466677	9.316460915	0.086310039	15000 (maxed out)	6.020188194	7.947972528	6.58247061	8.598203204	5.769138133	
Daily Demand Forecasting Orders	60 (15 + 45)	12	1	91	1.00E-03	1	20	0.001666899796	0.004844102851	12.04029648	22.27632629	0.091679858	15000 (maxed out)	65.49049494	75.61851996	68.59831012	86.56354272	7.066124994	
Concrete Compressive Strength	1030 (258 + 772)	8	1	6	1.00E-03	1	615	8.333475056	10.49074969	7.946607505	10.02597678	1.21046256	15000 (maxed out)	6.487866097	7.980244794	6.226786837	7.452731385	6.834297493	

24.86737377

25.73795038

0.2428476794

31.51962377

0.3171518091

1.00E-03

1.00E-03

Airfoil Self-Noise

Challenger USA Space Shuttle O-Ring

1503 (376 + 1127)

23 (6 + 17)

Algorithm Used

15000 (maxed out)

508

28.88359558

0.006247040001

0.00296591701

33.86332871

29.19335986

0.416661362 | 0.2478271325 | 0.2896626883

34.09586372

7.837339675

0.199629203