

		Hardware -Agnostic		PE Specific		Deterministic		Stochastic					Baseline
Dataset	Topology	Train	Test	Train	Test	4-bit	8-bit	4-bit	8-bit	Proposed			Random Guess
Acute Inflammation	6-3-2	1.0	1.0	1.0	1.0	1.0	1.0	0.920 \pm 0.029	0.915 \pm 0.028	0.918 \pm 0.03			0.475
Balance Scale	4-3-3	0.914	0.903	0.900	0.874	0.852	0.914	0.874 \pm 0.008	0.872 \pm 0.008	0.874 \pm 0.008			0.440
Breast Cancer Wisconsin	9-3-2	0.970	0.965	0.955	0.952	0.967	0.970	0.714 \pm 0.009	0.714 \pm 0.008	0.714 \pm 0.008			0.667
Energy efficiency (y1)	8-3-3	0.889	0.882	0.870	0.850	0.881	0.889	0.793 \pm 0.013	0.794 \pm 0.013	0.791 \pm 0.014			0.433
Energy efficiency (y2)	8-3-3	0.909	0.890	0.883	0.862	0.885	0.905	0.748 \pm 0.013	0.750 \pm 0.012	0.749 \pm 0.015			0.465
Iris	4-3-3	0.990	1.0	0.910	0.860	0.96	0.99	0.684 \pm 0.01	0.6837 \pm 0.011	0.684 \pm 0.009			0.280
Mammographic Mass	5-3-2	0.838	0.833	0.824	0.780	0.812	0.835	0.756 \pm 0.009	0.755 \pm 0.009	0.755 \pm 0.009			0.550
Seeds	7-3-3	0.979	0.986	0.921	0.914	0.942	0.971	0.867 \pm 0.018	0.869 \pm 0.017	0.868 \pm 0.018			0.271
Tic-Tac-Toe Endgame	9-3-2	0.991	0.975	0.989	0.978	0.808	0.990	0.668 \pm 0.004	0.668 \pm 0.004	0.668 \pm 0.004			0.640
Vertebral Column (2 cl.)	6-3-2	0.855	0.903	0.768	0.786	0.812	0.850	0.559 \pm 0.022	0.559 \pm 0.022	0.555 \pm 0.024			0.690
Vertebral Column (3 cl.)	6-3-3	0.768	0.806	0.647	0.670	0.469	0.768	0.297 \pm 0.026	0.290 \pm 0.023	0.297 \pm 0.022			0.515
Cardio	21-3-3	0.839	0.826	0.784	0.766	0.802	0.826	0.784 \pm 0.0006	0.784 \pm 0.0003	0.784 \pm 0.0005			0.766
Pendigits	16-3-10	0.518	0.520	0.501	0.509	0.441	0.526	0.216 \pm 0.004	0.218 \pm 0.002	0.219 \pm 0.004			0.099