

DNNCOV: An Integrated Framework for Measuring Testing Coverage in Deep Neural Networks (TAR) Appendix

Anonymous Author(s)

TABLE I: Defect Detection Results for MNIST-Adversarial (Epsilon 0.01)

	Acc	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	98.22	90.26	45.29	44.30	6.25	0.10	0.12	98.65	97.30	90.41	45.27	0.00	1.49	21.27	50.75
Adversarial (1%)	98.18	90.26	45.30	44.30	6.25	0.10	0.12	98.65	97.30	90.33	45.27	0.00	1.49	21.34	50.75
Difference	-0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.07	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	-0.54	0.00	0.00	0.00	1.00	0.00
Adversarial (2%)	98.16	90.16	45.28	44.26	6.25	0.11	0.15	98.65	97.30	90.27	45.27	0.00	1.49	21.34	50.75
Difference	-0.06	-0.09	-0.01	-0.04	0.00	0.01	0.03	0.00	0.00	-0.13	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	-0.31	-0.14	-0.36	0.00	0.20	0.38	0.00	0.00	-1.00	0.00	0.00	0.00	1.00	0.00
Adversarial (3%)	98.24	90.36	45.30	44.30	6.26	0.10	0.12	98.65	97.30	90.27	45.27	0.00	1.49	21.34	50.75
Difference	0.02	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.13	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.00	0.00	0.00	0.00	1.00	0.00
Adversarial (5%)	98.06	90.28	45.31	44.32	6.26	0.11	0.15	98.65	97.30	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-0.16	0.03	0.02	0.03	0.01	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.10	0.29	0.27	1.00	0.20	0.38	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Adversarial (7%)	98.00	90.34	45.25	44.35	6.25	0.10	0.12	98.65	97.30	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-0.22	0.08	-0.04	0.05	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.28	-0.57	0.45	0.00	-0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Adversarial (10%)	98.18	90.46	45.32	44.36	6.25	0.14	0.20	98.65	97.30	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-0.04	0.20	0.03	0.07	0.00	0.04	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.69	0.43	0.64	0.00	0.80	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00

TABLE II: Defect Detection Results for MNIST-Adversarial (Epsilon 0.05)

	Acc	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	98.22	90.26	45.29	44.30	6.25	0.10	0.12	98.65	97.30	90.41	45.27	0.00	1.49	21.27	50.75
Adversarial (1%)	97.52	90.53	45.31	44.31	6.25	0.21	0.33	98.65	97.30	90.27	45.27	0.00	1.49	21.34	50.75
Difference	-0.70	0.27	0.02	0.01	0.00	0.11	0.21	0.00	0.00	-0.14	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.28	0.06	0.06	0.00	0.22	0.21	0.00	0.00	-0.34	0.00	0.00	0.00	0.32	0.00
Adversarial (2%)	96.70	90.64	45.36	44.28	6.25	0.23	0.38	98.65	97.30	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-1.52	0.38	0.07	-0.01	0.00	0.13	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.40	0.22	-0.06	0.00	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00
Adversarial (3%)	96.32	90.78	45.44	44.31	6.26	0.33	0.56	98.65	97.30	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-1.90	0.53	0.14	0.01	0.01	0.22	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.55	0.44	0.06	0.50	0.44	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00
Adversarial (5%)	94.70	90.84	45.46	44.40	6.26	0.35	0.61	98.65	97.30	90.00	45.27	0.00	1.49	21.34	50.75
Difference	-3.52	0.58	0.17	0.10	0.01	0.25	0.49	0.00	0.00	-0.41	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.60	0.53	0.63	0.50	0.50	0.49	0.00	0.00	-1.00	0.00	0.00	0.00	0.32	0.00
Adversarial (7%)	93.38	91.22	45.57	44.42	6.27	0.51	0.91	98.65	97.43	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-4.84	0.96	0.28	0.12	0.02	0.41	0.79	0.00	0.13	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	1.00	0.88	0.75	1.00	0.82	0.79	0.00	1.00	0.00	0.00	0.00	0.00	0.32	0.00
Adversarial (10%)	90.98	90.89	45.61	44.45	6.27	0.60	1.12	98.65	97.43	90.27	45.27	0.00	1.49	21.49	50.75
Difference	-7.24	0.63	0.32	0.15	0.01	0.50	1.00	0.00	0.13	-0.14	0.00	0.00	0.00	0.22	0.00
Normalized Diff	N/A	0.66	1.00	0.94	0.50	1.00	1.00	0.00	1.00	-0.34	0.00	0.00	0.00	1.00	0.00

TABLE III: Defect Detection Results for MNIST-Adversarial (Epsilon 0.1)

	Acc	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	98.22	90.26	45.29	44.30	6.25	0.10	0.12	98.65	97.30	90.41	45.27	0.00	1.49	21.27	50.75
Adversarial (1%)	97.26	91.43	45.43	44.36	6.26	0.87	1.57	98.65	97.30	90.41	45.27	0.00	1.49	21.34	50.75
Difference	-0.96	1.17	0.14	0.07	0.01	0.77	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Normalized Diff	N/A	0.55	0.12	0.16	0.09	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
Adversarial (2%)	96.30	91.74	45.58	44.43	6.28	1.10	2.00	98.65	97.30	90.41	45.27	0.00	1.49	21.42	50.75
Difference	-1.92	1.48	0.29	0.14	0.02	1.00	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00
Normalized Diff	N/A	0.70	0.25	0.32	0.18	0.37	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00
Adversarial (3%)	95.32	92.03	45.70	44.46	6.29	1.26	2.32	98.65	97.30	90.41	45.27	0.00	1.49	21.49	50.75
Difference	-2.90	1.77	0.41	0.16	0.03	1.16	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.00
Normalized Diff	N/A	0.83	0.35	0.36	0.27	0.43	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00
Adversarial (5%)	93.40	92.18	45.98	44.58	6.31	1.85	3.32	98.65	97.30	90.41	45.27	0.00	1.49	21.79	50.75
Difference	-4.82	1.92	0.68	0.28	0.06	1.75	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00
Normalized Diff	N/A	0.91	0.59	0.64	0.55	0.66	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00
Adversarial (7%)	91.64	92.38	46.20	44.74	6.33	2.29	4.25	98.65	97.43	90.94	45.27	0.00	1.49	21.94	50.75
Difference	-6.58	2.12	0.91	0.44	0.07	2.18	4.13	0.00	0.13	0.54	0.00	0.00	0.00	0.67	0.00
Normalized Diff	N/A	1.00	0.78	1.00	0.64	0.82	0.84	0.00	1.00	0.79	0.00	0.00	0.00	1.00	0.00
Adversarial (10%)	88.52	92.34	46.45	44.70	6.36	2.77	5.05	98.65	97.43	90.27	45.27	0.00	1.49	21.71	50.75
Difference	-9.70	2.08	1.16	0.40	0.11	2.67	4.93	0.00	0.13	-0.14	0.00	0.00	0.00	0.44	0.00
Normalized Diff	N/A	0.98	1.00	0.91	1.00	1.00	1.00	0.00	1.00	-0.21	0.00	0.00	0.00	0.66	0.00

TABLE IV: Defect Detection Results for MNIST-Adversarial (Epsilon 0.2)

	Acc	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	98.22	90.26	45.29	44.30	6.25	0.10	0.12	98.65	97.30	90.41	45.27	0.00	1.49	21.27	50.75
Adversarial (1%)	97.22	92.09	45.49	44.47	6.30	1.90	3.38	98.65	97.30	90.41	45.27	0.00	1.49	21.71	50.75
Difference	-1.00	1.84	0.20	0.17	0.05	1.80	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00
Normalized Diff	N/A	0.64	0.12	0.18	0.17	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00
Adversarial (2%)	96.22	92.51	45.69	44.51	6.33	2.30	4.06	98.65	97.30	90.41	45.27	0.04	1.57	22.31	50.75
Difference	-2.00	2.25	0.40	0.21	0.08	2.19	3.94	0.00	0.00	0.00	0.00	0.04	0.08	1.04	0.00
Normalized Diff	N/A	0.78	0.24	0.22	0.28	0.41	0.41	0.00	0.00	0.00	0.00	0.13	0.21	0.30	0.00
Adversarial (3%)	95.24	92.69	45.87	44.59	6.37	3.08	5.55	98.65	97.30	90.27	45.27	0.15	1.72	23.06	50.75
Difference	-2.98	2.43	0.58	0.30	0.12	2.98	5.43	0.00	0.00	-0.14	0.00	0.15	0.23	1.79	0.00
Normalized Diff	N/A	0.84	0.34	0.31	0.41	0.56	0.56	0.00	0.00	-1.00	0.00	0.50	0.61	0.51	0.00
Adversarial (5%)	93.38	92.77	46.23	44.78	6.42	3.79	6.66	98.65	97.43	90.27	45.27	0.19	1.87	24.18	50.75
Difference	-4.84	2.51	0.93	0.48	0.17	3.69	6.54	0.00	0.13	-0.14	0.00	0.19	0.38	2.91	0.00
Normalized Diff	N/A	0.87	0.55	0.49	0.59	0.69	0.68	0.00	1.00	-1.00	0.00	0.63	1.00	0.83	0.00
Adversarial (7%)	91.40	93.01	46.58	45.04	6.48	4.43	7.80	98.65	97.30	90.41	45.27	0.30	1.87	24.26	50.75
Difference	-6.82	2.76	1.29	0.74	0.23	4.33	7.68	0.00	0.00	0.00	0.00	0.30	0.38	2.99	0.00
Normalized Diff	N/A	0.96	0.76	0.76	0.79	0.81	0.80	0.00	0.00	0.00	0.00	1.00	1.00	0.85	0.00
Adversarial (10%)	88.34	93.14	46.99	45.27	6.55	5.46	9.77	98.65	97.30	90.41	45.27	0.30	1.87	24.78	50.75
Difference	-9.88	2.88	1.70	0.97	0.29	5.35	9.65	0.00	0.00	0.00	0.00	0.30	0.38	3.51	0.00
Normalized Diff	N/A	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00

TABLE V: Defect Detection Results for MNIST-Adversarial (Epsilon 0.3)

	Acc	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	98.22	90.26	45.29	44.30	6.25	0.10	0.12	98.65	97.30	90.41	45.27	0.00	1.49	21.27	50.75
Adversarial (1%)	97.26	92.06	45.50	44.43	6.30	1.81	3.21	98.65	97.30	90.41	45.27	0.15	1.72	22.28	50.75
Difference	-0.96	1.80	0.20	0.13	0.04	1.70	3.09	0.00	0.00	0.00	0.00	0.15	0.23	1.01	0.00
Normalized Diff	N/A	0.58	0.11	0.13	0.13	0.31	0.31	0.00	0.00	0.00	0.00	0.50	0.61	0.29	0.00
Adversarial (2%)	96.26	92.66	45.70	44.73	6.34	2.58	4.50	98.65	97.30	90.41	45.27	0.23	1.87	22.61	50.75
Difference	-1.96	2.41	0.41	0.43	0.09	2.48	4.38	0.00	0.00	0.00	0.00	0.23	0.38	1.34	0.00
Normalized Diff	N/A	0.78	0.23	0.43	0.28	0.45	0.44	0.00	0.00	0.00	0.00	0.77	1.00	0.38	0.00
Adversarial (3%)	95.32	92.85	45.89	44.81	6.38	3.07	5.55	98.65	97.30	90.41	45.27	0.23	1.87	23.21	50.75
Difference	-2.90	2.60	0.60	0.51	0.12	2.96	5.43	0.00	0.00	0.00	0.00	0.23	0.38	1.94	0.00
Normalized Diff	N/A	0.84	0.34	0.50	0.38	0.53	0.55	0.00	0.00	0.00	0.00	0.77	1.00	0.55	0.00
Adversarial (5%)	93.42	93.19	46.31	44.95	6.45	3.79	6.67	98.65	97.30	90.41	45.27	0.26	1.87	23.28	50.75
Difference	-4.80	2.93	1.02	0.65	0.20	3.69	6.55	0.00	0.00	0.00	0.00	0.26	0.38	2.01	0.00
Normalized Diff	N/A	0.95	0.58	0.64	0.63	0.66	0.66	0.00	0.00	0.00	0.00	0.87	1.00	0.57	0.00
Adversarial (7%)	91.40	93.34	46.67	45.14	6.51	4.67	8.12	98.65	97.30	90.41	45.27	0.30	1.87	24.48	50.75
Difference	-6.82	3.08	1.37	0.84	0.25	4.57	8.00	0.00	0.00	0.00	0.00	0.30	0.38	3.21	0.00
Normalized Diff	N/A	1.00	0.78	0.83	0.78	0.82	0.81	0.00	0.00	0.00	0.00	1.00	1.00	0.91	0.00
Adversarial (10%)	88.50	93.35	47.06	45.31	6.57	5.66	9.99	98.65	97.30	90.95	45.27	0.30	1.87	24.78	50.75
Difference	-9.72	3.09	1.76	1.01	0.32	5.56	9.87	0.00	0.00	0.54	0.00	0.30	0.38	3.51	0.00
Normalized Diff	N/A	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00

TABLE VI: Defect Detection Results for MNIST-Poisoned

[illegible]

TABLE VII: Functional Diversity Results for MNIST

	Acc	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
1 Label	97.00	63.55	28.68	34.85	6.46	0.05	0.08	100.00	98.65	92.30	72.57	0.00	0.00	75.23	99.70
2 Label	97.48	76.27	35.83	45.84	7.45	0.09	0.12	100.00	99.05	95.14	78.11	0.00	0.00	79.85	100.00
Difference	0.47	12.72	7.15	10.99	0.99	0.04	0.04	0.00	0.40	2.84	5.54	0.00	0.00	4.62	0.30
Normalized Diff	N/A	0.49	0.61	0.43	0.52	0.57	0.80	0.00	0.60	0.62	0.71	0.00	0.00	0.76	1.00
3 Label	95.93	79.74	37.11	51.12	7.80	0.08	0.08	100.00	99.05	95.54	79.33	0.00	0.00	81.04	100.00
Difference	-1.08	16.19	8.43	16.27	1.34	0.02	0.00	0.00	0.40	3.24	6.76	0.00	0.00	5.82	0.30
Normalized Diff	N/A	0.62	0.72	0.64	0.70	0.29	0.00	0.00	0.60	0.71	0.86	0.00	0.00	0.95	1.00
5 Label	96.30	85.13	39.16	57.74	8.15	0.11	0.10	100.00	99.32	96.08	79.46	0.00	0.00	81.19	100.00
Difference	-0.70	21.58	10.48	22.89	1.70	0.06	0.01	0.00	0.67	3.78	6.89	0.00	0.00	5.97	0.30
Normalized Diff	N/A	0.83	0.89	0.89	0.89	0.86	0.20	0.00	1.00	0.82	0.88	0.00	0.00	0.98	1.00
7 Label	96.65	87.32	39.89	58.54	8.25	0.10	0.12	100.00	99.05	96.49	80.27	0.00	0.00	81.34	100.00
Difference	-0.35	23.77	11.21	23.69	1.79	0.04	0.04	0.00	0.40	4.19	7.70	0.00	0.00	6.11	0.30
Normalized Diff	N/A	0.91	0.95	0.93	0.94	0.57	0.80	0.00	0.60	0.91	0.98	0.00	0.00	1.00	1.00
10 Labels	96.60	89.68	40.42	60.45	8.37	0.13	0.13	100.00	99.32	96.89	80.41	0.00	0.00	81.34	100.00
Difference	-0.40	26.12	11.74	25.60	1.91	0.07	0.05	0.00	0.67	4.59	7.84	0.00	0.00	6.11	0.30
Normalized Diff	N/A	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00

TABLE VIII: Quantitative Information for Adversarial 0.01

Dataset	Metric	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.80	246.40	0.80	0.80	232.00	246.00	252.20	244.80	0.00	98.840.40	125,897.80	199,146.00
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.66	94.57	55.21	0.00	749.13	20,325.60	35,183.88
	Std.	78.73	1.42	33.36	6.42	0.02	0.03	40.92	61.28	73.75	71.70	0.00	7,946.83	40,408.32	44,938.10
	Var.	6,198.64	2.03	1,112.89	41.19	0.00	0.00	1,674.34	3,755.88	5,440.95	5,143.82	0.00	63,197,042.79	1,633,247,596.37	2,019,902,359.70
Adversarial (1%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	13.00	243.60	246.00	0.80	0.80	232.00	245.60	251.20	246.00	0.00	99,051.40	125,884.40	199,491.20
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.22	94.56	55.50	0.00	750.78	20,319.80	35,147.82
	Std.	78.74	1.42	33.36	6.42	0.02	0.03	40.96	61.80	73.73	72.03	0.00	7,966.20	40,394.70	44,894.35
	Var.	6,200.70	2.03	1,113.18	41.20	0.00	0.00	1,677.25	3,820.56	5,438.45	5,190.63	0.00	63,508,493.73	1,632,233,481.23	2,016,103,470.61
Adversarial (2%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.60	247.80	0.80	0.80	232.00	246.60	252.00	245.80	0.00	98,907.80	125,735.80	198,580.80
	Avg	74.40	0.99	14.98	0.94	0.00	0.00	218.81	196.81	94.00	55.53	0.00	747.93	20,290.02	35,131.31
	Std.	78.87	1.43	33.37	6.42	0.02	0.03	40.98	61.11	73.49	72.06	0.00	7,938.27	40,346.93	44,864.90
	Var.	6,220.12	2.03	1,113.87	41.21	0.00	0.00	1,679.37	3,735.26	5,401.73	5,195.07	0.00	63,051,574.12	1,628,385,973.21	2,013,505,910.20
Adversarial (3%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.40	239.60	247.40	0.80	0.80	232.00	246.00	251.20	245.60	0.00	99,376.00	125,870.60	199,401.60
	Avg	74.08	0.99	14.94	0.94	0.00	0.00	218.81	196.59	94.77	55.35	0.00	750.51	20,359.66	35,233.70
	Std.	78.57	1.42	33.23	6.41	0.02	0.03	41.06	61.33	73.79	71.88	0.00	7,963.04	40,471.21	45,018.02
	Var.	6,173.73	2.03	1,105.01	41.18	0.00	0.00	1,685.59	3,763.67	5,446.85	5,170.27	0.00	63,449,045.92	1,638,370,269.99	2,027,103,571.77
Adversarial (5%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.80	243.40	246.80	1.00	1.00	232.00	246.20	252.60	247.60	0.00	98,053.80	126,631.20	199,482.20
	Avg	74.46	0.99	14.98	0.94	0.00	0.00	218.81	196.39	94.99	56.07	0.00	743.97	20,388.69	35,357.64
	Std.	78.86	1.42	33.39	6.42	0.03	0.03	40.99	61.49	73.77	72.67	0.00	7,893.35	40,537.40	45,176.01
	Var.	6,217.96	2.03	1,115.40	41.17	0.00	0.00	1,679.92	3,780.55	5,443.77	5,282.03	0.00	62,330,839.26	1,643,880,038.28	2,041,477,612.30
Adversarial (7%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.00	245.40	247.60	0.80	0.80	232.00	245.60	251.60	244.40	0.00	99,353.60	126,512.60	199,092.00
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.41	93.22	55.40	0.00	749.01	20,325.00	35,200.26
	Std.	78.80	1.42	33.44	6.42	0.02	0.03	41.00	61.51	73.45	72.05	0.00	7,964.38	40,438.32	44,987.93
	Var.	6,210.14	2.03	1,118.46	41.26	0.00	0.00	1,684.01	3,785.39	5,396.49	5,193.77	0.00	63,474,745.53	1,635,615,279.61	2,024,402,032.03
Adversarial (10%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.80	245.00	0.80	0.80	232.00	248.60	252.60	252.40	0.00	100,016.60	125,901.00	199,081.40
	Avg	74.39	0.99	14.98	0.94	0.00	0.00	218.81	196.63	95.85	56.13	0.00	752.76	20,348.35	35,270.03
	Std.	78.82	1.42	33.39	6.42	0.03	0.04	40.89	61.23	73.65	72.94	0.00	7,998.60	40,470.75	45,032.15
	Var.	6,213.51	2.03	1,115.04	41.17	0.00	0.00	1,671.81	3,748.70	5,424.76	5,320.21	0.00	63,989,837.24	1,638,136,362.75	2,028,186,101.38

TABLE IX: Quantitative Information for Adversarial 0.05

Dataset	Metric	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.80	246.40	0.80	0.80	232.00	246.00	252.20	244.80	0.00	98,840.40	125,897.80	199,146.00
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.66	94.57	55.21	0.00	749.13	20,325.60	35,183.88
	Std.	78.73	1.42	33.36	6.42	0.02	0.03	40.92	61.28	73.75	71.70	0.00	7,946.83	40,408.32	44,938.10
	Var.	6,198.64	2.03	1,112.89	41.19	0.00	0.00	1,674.34	3,755.88	5,440.95	5,143.82	0.00	63,197,042.79	1,633,247,596.37	2,019,902,359.70
Adversarial (1%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.40	242.40	245.60	1.20	1.20	232.00	245.00	251.80	243.20	0.00	99,046.60	126,548.00	200,341.80
	Avg	74.43	0.99	14.98	0.94	0.00	0.00	218.81	196.71	94.62	55.30	0.00	750.96	20,395.97	35,458.18
	Std.	78.84	1.42	33.34	6.42	0.05	0.06	40.95	61.17	73.77	71.82	0.00	7,960.28	40,560.88	45,322.25
	Var.	6,216.11	2.03	1,112.09	41.27	0.00	0.00	1,676.74	3,741.38	5,444.11	5,160.31	0.00	63,425,820.87	1,645,481,948.24	2,054,369,861.41
Adversarial (2%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.40	242.40	245.60	1.20	1.20	232.00	246.40	251.40	245.80	0.00	98,755.80	126,715.80	200,541.00
	Avg	74.32	0.99	14.98	0.94	0.00	0.00	218.81	196.81	93.94	55.58	0.00	749.84	20,405.93	35,540.45
	Std.	78.70	1.42	33.33	6.41	0.05	0.06	40.89	61.06	73.44	72.16	0.00	7,944.03	40,589.58	45,435.46
	Var.	6,193.98	2.03	1,111.05	41.13	0.00	0.00	1,672.49	3,729.49	5,394.50	5,209.66	0.00	63,150,014.54	1,648,096,802.86	2,065,220,408.92
Adversarial (3%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.60	247.20	1.40	1.40	232.00	245.00	250.40	245.40	0.00	100,500.20	127,709.80	203,231.20
	Avg	74.77	0.99	14.98	0.94	0.00	0.00	218.81	196.89	94.64	55.85	0.00	758.75	20,652.14	36,083.20
	Std.	78.96	1.42	33.28	6.42	0.05	0.08	40.86	60.95	73.86	72.41	0.00	8,025.96	41,081.81	46,165.40
	Var.	6,234.44	2.02	1,107.90	41.19	0.00	0.00	1,669.22	3,715.04	5,457.91	5,245.42	0.00	64,445,327.53	1,688,121,072.92	2,131,526,529.28
Adversarial (5%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.20	241.80	243.80	2.00	2.00	232.00	247.60	252.00	247.80	0.00	100,255.60	129,590.20	205,228.40
	Avg	74.98	0.99	14.98	0.94	0.00	0.01	218.81	196.87	94.68	55.54	0.00	754.05	20,676.13	36,373.85
	Std.	79.11	1.42	33.28	6.42	0.07	0.10	40.92	61.07	74.34	72.16	0.00	7,984.34	41,162.00	46,680.11
	Var.	6,258.54	2.02	1,107.78	41.21	0.01	0.01	1,674.51	3,729.56	5,527.93	5,208.78	0.00	63,823,354.99	1,694,688,936.45	2,179,377,593.20
Adversarial (7%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.20	241.60	249.20	2.40	2.40	232.00	246.80	250.40	245.00	0.00	100,525.20	129,394.40	206,095.20
	Avg	75.01	0.99	14.98	0.94	0.00	0.01	218.81	197.74	93.72	55.73	0.00	761.63	20,814.14	36,851.64
	Std.	79.01	1.42	33.32	6.41	0.09	0.12	41.12	59.82	73.32	71.82	0.00	8,052.85	41,422.85	47,293.85
	Var.	6,242.23	2.01	1,103.69	41.17	0.01	0.02	1,681.39	3,579.26	5,377.00	5,266.99	0.00	64,920,959.57	1,716,057,909.76	2,236,834,512.65
Adversarial (10%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.00	243.80	247.60	1.80	1.80	232.00	246.00	253.60	250.60	0.00	101,140.80	130,800.20	208,427.40
	Avg	75.28	0.99	14.98	0.94	0.01	0.01	218.81	196.91	95.75	56.57	0.00	764.98	20,985.98	37,337.72
	Std.	79.16	1.42	33.17	6.41	0.09	0.13	41.11	60.64	74.19	73.57	0.00	8,091.36	41,774.54	48,043.28
	Var.	6,267.09	2.01	1,100.66	41.11	0.01	0.02	1,690.37	3,677.76	5,505.81	5,412.91	0.00	65,507,616.31	1,745,459,091.85	2,308,414,385.40

TABLE X: Quantitative Information for Adversarial 0.10

Dataset	Metric	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.80	246.40	0.80	0.80	232.00	246.00	252.20	244.80	0.00	98,840.40	125,897.80	199,146.00
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.66	94.57	55.21	0.00	749.13	20,325.60	35,183.88
	Std.	78.73	1.42	33.36	6.42	0.02	0.03	40.92	61.28	73.75	71.70	0.00	7,946.83	40,408.32	44,938.10
	Var.	6,198.64	2.03	1,112.89	41.19	0.00	0.00	1,674.34	3,755.88	5,440.95	5,143.82	0.00	63,197,042.79	1,633,247,596.37	2,019,902,359.70
Adversarial (1%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.00	246.40	3.80	3.80	232.00	246.20	251.00	244.40	0.00	99,533.40	127,342.60	201,300.60
	Avg	74.40	0.99	14.98	0.94	0.01	0.02	218.81	196.95	94.33	55.21	0.00	755.57	20,519.41	35,912.81
	Std.	78.63	1.42	33.31	6.41	0.15	0.21	40.89	60.69	73.67	71.76	0.00	8,009.00	40,787.60	45,940.49
	Var.	6,182.49	2.02	1,109.82	41.11	0.02	0.05	1,672.08	3,695.40	5,429.43	5,152.79	0.00	64,179,895.60	1,664,006,378.45	2,110,961,351.69
Adversarial (2%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.00	242.00	246.20	5.40	5.40	232.00	244.80	251.60	242.40	0.00	100,111.20	129,369.60	205,544.20
	Avg	75.22	0.99	14.98	0.94	0.02	0.03	218.81	196.67	94.60	55.28	0.00	756.86	20,677.33	36,563.66
	Std.	78.96	1.42	33.27	6.41	0.20	0.29	40.85	60.94	73.85	71.71	0.00	7,998.49	41,120.50	46,861.67
	Var.	6,235.01	2.01	1,107.23	41.10	0.04	0.08	1,668.65	3,713.39	5,455.79	5,145.66	0.00	64,017,678.53	1,691,272,081.04	2,196,356,891.03
Adversarial (3%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.00	242.40	246.60	7.00	7.00	232.00	247.80	252.40	247.20	0.00	99,714.40	131,324.80	210,128.40
	Avg	75.45	0.99	14.98	0.94	0.02	0.05	218.81	196.50	94.55	55.84	0.00	758.52	20,993.85	37,370.93
	Std.	78.87	1.41	33.14	6.40	0.28	0.40	40.88	60.97	74.07	72.30	0.00	7,972.98	41,752.63	47,988.15
	Var.	6,220.43	2.00	1,098.76	40.96	0.09	0.17	1,671.35	3,717.35	5,489.13	5,229.25	0.00	63,627,849.45	1,743,664,326.54	2,303,206,368.90
Adversarial (5%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.20	241.60	244.40	14.20	14.20	232.00	247.60	252.40	244.80	0.00	103,628.20	134,507.80	217,061.40
	Avg	76.26	0.99	14.98	0.94	0.05	0.09	218.81	196.71	94.42	55.87	0.00	779.02	21,358.64	38,804.50
	Std.	78.97	1.40	33.05	6.39	0.54	0.76	40.68	60.44	73.93	72.52	0.00	8,169.55	42,505.87	50,073.39
	Var.	6,236.77	1.98	1,092.38	40.76	0.30	0.60	1,654.81	3,655.62	5,467.46	5,260.46	0.00	66,780,104.15	1,807,013,205.85	2,507,627,130.23
Adversarial (7%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.20	235.00	247.60	21.00	21.00	232.00	246.20	252.60	243.40	0.00	106,533.00	138,700.60	226,584.00
	Avg	77.21	0.98	14.91	0.94	0.07	0.14	218.81	196.39	93.97	55.21	0.00	789.34	21,733.24	40,228.64
	Std.	79.13	1.40	32.73	6.37	0.76	1.07	40.79	60.66	73.85	71.77	0.00	8,260.06	43,328.82	52,279.91
	Var.	6,261.81	1.96	1,071.03	40.63	0.58	1.15	1,664.25	3,680.02	5,457.79	5,151.68	0.00	68,267,269.24	1,877,726,824.64	2,733,615,255.28
Adversarial (10%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.60	233.40	240.20	25.40	25.40	232.00	248.20	253.80	249.20	0.00	106,929.60	142,408.20	234,034.20
	Avg	78.44	0.98	14.91	0.94	0.09	0.18	218.81	196.66	94.14	56.54	0.00	794.13	22,246.70	41,912.78
	Std.	79.39	1.39	32.58	6.34	1.00	1.41	40.78	59.57	74.25	73.43	0.00	8,302.24	44,400.16	54,887.79
	Var.	6,302.98	1.94	1,061.47	40.26	1.01	1.99	1,662.86	3,551.81	5,513.48	5,394.16	0.00	69,025,360.87	1,971,891,928.32	3,013,303,512.27

TABLE XI: Quantitative Information for Adversarial 0.20

Dataset	Metric	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MC/DC (VV)
Clean	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.80	246.40	0.80	0.80	232.00	246.00	252.20	244.80	0.00	98,840.40	125,897.80	199,146.00
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.66	94.57	55.21	0.00	749.13	20,325.60	35,183.88
	Std.	78.73	1.42	33.36	6.42	0.02	0.03	40.92	61.28	73.75	71.70	0.00	7,946.83	40,408.32	44,938.10
	Var.	6,198.64	2.03	1,112.89	41.19	0.00	0.00	1,674.34	3,755.88	5,440.95	5,143.82	0.00	63,197,042.79	1,633,247,596.37	2,019,902,359.70
Adversarial (1%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	244.00	247.00	7.80	7.80	232.00	245.80	252.00	245.40	0.00	99,085.20	128,370.80	203,798.20
	Avg	74.85	0.99	14.98	0.94	0.04	0.09	218.81	196.66	95.19	55.18	0.00	757.07	20,573.16	36,236.93
	Std.	78.76	1.42	33.21	6.40	0.42	0.58	40.76	60.94	74.06	71.70	0.00	7,964.02	40,877.38	46,360.48
	Var.	6,202.52	2.02	1,103.27	40.99	0.17	0.35	1,661.20	3,713.62	5,488.11	5,144.42	0.00	63,470,847.38	1,671,421,409.96	2,151,743,467.02
Adversarial (2%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	239.40	248.60	14.80	14.80	232.00	247.40	252.20	244.00	102.80	99,566.20	130,171.40	208,778.60
	Avg	75.41	0.98	14.91	0.94	0.07	0.13	218.81	196.85	94.44	55.08	0.19	766.17	20,818.92	37,225.58
	Std.	78.80	1.41	32.89	6.37	0.66	0.93	40.78	60.32	73.69	71.64	4.44	7,999.02	41,369.23	47,775.39
	Var.	6,209.84	2.00	1,082.00	40.63	0.45	0.89	1,663.04	3,639.02	5,432.57	5,134.62	98.40	50,935,470.33	1,711,669,276.42	2,282,788,725.14
Adversarial (3%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.00	244.00	251.00	22.00	22.00	232.00	248.40	253.00	246.20	397.20	101,193.60	132,889.20	213,432.60
	Avg	76.05	0.98	14.98	0.94	0.12	0.23	218.81	196.74	93.61	55.44	0.87	778.01	21,112.71	38,382.49
	Std.	78.92	1.41	33.00	6.38	1.08	1.51	40.64	60.09	73.49	71.96	17.92	8,045.42	41,929.14	49,409.35
	Var.	6,228.09	1.98	1,089.56	40.62	1.18	2.32	1,651.82	3,611.81	5,404.27	5,180.05	557.47	64,785,385.94	1,758,560,214.72	2,441,890,620.89
Adversarial (5%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.00	240.60	248.00	35.60	35.60	232.00	243.00	251.20	248.40	320.60	104,813.40	137,620.00	225,675.60
	Avg	77.29	0.98	14.91	0.94	0.17	0.34	218.81	195.86	94.41	55.78	0.60	794.48	21,652.68	40,348.78
	Std.	78.91	1.40	32.58	6.33	1.64	2.31	40.43	60.61	73.72	72.52	13.84	8,143.48	43,043.76	52,330.50
	Var.	6,227.94	1.95	1,061.77	40.04	2.70	5.35	1,634.97	3,677.50	5,438.00	5,261.08	207.49	66,360,472.50	1,853,138,304.03	2,738,957,290.24
Adversarial (7%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	239.80	243.40	52.60	52.60	232.00	253.40	249.40	251.40	840.00	105,458.80	141,215.80	232,521.20
	Avg	78.27	0.98	14.91	0.94	0.26	0.51	218.81	195.89	93.02	55.52	2.40	818.27	22,184.44	42,585.93
	Std.	78.79	1.39	32.42	6.29	2.40	3.38	40.31	60.04	73.21	72.23	42.93	8,266.97	44,067.54	55,574.02
	Var.	6,208.15	1.92	1,051.17	39.56	5.79	11.46	1,624.74	3,606.03	5,362.71	5,217.29	2,085.84	68,349,634.49	1,942,252,693.96	3,088,826,594.80
Adversarial (10%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	11.80	236.20	246.60	76.40	76.40	232.00	250.80	252.40	245.00	1,188.00	112,392.80	147,373.00	247,189.20
	Avg	80.29	0.98	14.91	0.94	0.38	0.76	218.81	195.17	94.28	55.59	2.82	852.52	22,745.32	45,048.35
	Std.	78.94	1.37	32.12	6.27	3.56	5.01	39.92	60.19	74.18	72.43	55.06	8,479.84	45,338.01	59,664.75
		6,231.74	1.88	1,031.93	39.25	12.69	25.09	1,593.66	3,622.74	5,505.84	5,246.43	3,336.42	71,948,612.40	2,056,068,161.01	3,560,458,918.46

TABLE XII: Quantitative Information for Adversarial 0.30

Dataset	Metric	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MCDC (VV)
Clean	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	243.80	246.40	0.80	0.80	232.00	246.00	252.20	244.80	0.00	98,840.40	125,897.80	199,146.00
	Avg	74.26	0.99	14.98	0.94	0.00	0.00	218.81	196.66	94.57	55.21	0.00	749.13	20,325.60	35,183.88
	Std.	78.73	1.42	33.36	6.42	0.02	0.03	40.92	61.28	73.75	71.70	0.00	7,946.83	40,408.32	44,938.10
	Var.	6,198.64	2.03	1,112.89	41.19	0.00	0.00	1,674.34	3,755.88	5,440.95	5,143.82	0.00	63,197,042.79	1,633,247,596.37	2,019,902,359.70
Adversarial (1%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	254.80	12.60	244.40	246.60	0.80	0.80	232.00	244.40	250.60	242.40	0.00	98,260.60	127,937.60	203,045.00
	Avg	74.62	0.99	14.98	0.94	0.03	0.07	218.81	196.21	93.34	55.24	0.46	755.49	20,578.96	36,211.28
	Std.	78.60	1.42	33.36	6.40	0.34	0.47	40.81	61.33	73.26	71.75	10.07	7,911.47	40,888.24	46,344.78
	Var.	6,178.46	2.01	1,104.04	40.93	0.11	0.22	1,665.75	3,762.31	5,368.85	5,150.71	208.82	62,640,337.45	1,672,313,012.50	2,148,389,038.52
Adversarial (2%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.40	239.20	245.20	15.20	15.20	232.00	247.00	250.60	250.40	602.80	96,876.00	130,198.40	206,618.20
	Avg	75.28	0.98	14.91	0.94	0.08	0.15	218.81	196.74	93.60	55.87	1.35	760.03	20,794.76	37,188.93
	Std.	78.67	1.41	32.83	6.37	0.72	1.01	40.71	60.43	73.59	72.34	28.03	7,835.01	41,300.57	47,706.59
	Var.	6,189.04	2.00	1,077.60	40.54	0.52	1.02	1,657.32	3,651.28	5,417.07	5,235.11	828.03	61,421,918.11	1,706,168,559.46	2,276,461,198.09
Adversarial (3%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	12.60	239.00	248.80	22.40	22.40	232.00	249.20	251.00	247.40	935.00	98,321.60	133,091.20	212,332.00
	Avg	76.33	0.98	14.91	0.94	0.11	0.23	218.81	196.54	93.74	55.89	1.97	772.12	21,110.53	38,326.39
	Std.	79.00	1.41	32.71	6.35	1.08	1.51	40.51	60.26	73.42	72.45	42.45	7,884.19	41,925.11	49,322.04
	Var.	6,241.61	1.98	1,069.82	40.34	1.17	2.31	1,640.62	3,631.34	5,392.80	5,250.99	2,062.30	62,223,985.00	1,757,959,520.17	2,432,847,799.95
Adversarial (5%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	11.60	238.00	249.40	33.20	33.20	232.00	250.40	251.00	248.60	981.80	97,635.00	137,262.00	222,595.00
	Avg	77.74	0.98	14.91	0.94	0.17	0.34	218.81	196.04	95.02	56.05	2.31	777.44	21,598.17	40,267.24
	Std.	79.04	1.39	32.42	6.31	1.61	2.26	40.46	60.42	73.83	72.73	44.85	7,745.57	42,925.26	52,162.78
	Var.	6,247.64	1.95	1,050.90	39.85	2.59	5.12	1,637.02	3,652.64	5,454.03	5,289.68	2,446.49	60,078,790.23	1,842,851,431.49	2,721,331,827.01
Adversarial (7%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	11.60	235.80	247.40	45.20	45.20	232.00	250.60	250.00	246.60	1,734.60	97,389.00	141,170.20	230,062.80
	Avg	78.61	0.98	14.91	0.94	0.24	0.48	218.81	195.20	92.92	55.85	4.15	788.27	22,011.75	41,959.93
	Std.	78.74	1.38	32.21	6.28	2.19	3.07	40.15	60.82	73.25	72.57	80.07	7,666.96	43,777.69	54,783.94
	Var.	6,200.31	1.91	1,037.72	39.48	4.84	9.56	1,612.15	3,700.53	5,367.98	5,266.52	6,868.04	58,927,033.66	1,917,065,788.65	3,001,816,353.08
Adversarial (10%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Max	255.00	11.60	233.00	247.20	69.20	69.20	232.00	251.60	253.40	246.60	2,363.60	95,831.60	146,695.20	242,320.40
	Avg	80.15	0.98	14.91	0.94	0.34	0.68	218.81	194.41	93.05	56.35	6.08	797.94	22,522.68	44,255.64
	Std.	78.65	1.37	32.04	6.25	3.17	4.46	39.96	60.96	73.37	73.38	114.16	7,496.02	44,955.50	58,645.70
	Var.	6,184.81	1.88	1,026.34	39.04	10.10	19.96	1,596.77	3,717.62	5,384.96	5,386.06	13,825.67	56,250,911.82	2,021,423,808.66	3,439,790,761.82

TABLE XIII: Quantitative Information for Poisoned

Dataset	Metric	KMNC (10)	KMNC (1000)	TKNC (10)	TKNC (1000)	NBC	SNAC	NC (0)	NC (0.2)	NC (0.5)	NC (0.75)	MC/DC (SS)	MC/DC (SV)	MC/DC (VS)	MCDC (VV)
Clean	Min	0.00	0.00	0.00	0.00	0.00	0.00	30.80	0.00	0.00	0.00	0.00	0.00	0.00	12,986.40
	Max	255.00	12.60	247.00	250.20	1.00	1.00	232.60	247.40	253.80	248.20	0.00	156,211.40	166,161.00	219,296.00
	Avg	65.99	1.00	15.84	0.95	0.00	0.00	221.60	199.85	122.49	99.68	0.00	882.18	66,915.34	43,847.31
	Std.	74.18	1.49	33.43	5.05	0.03	0.03	32.65	56.13	77.95	73.52	0.00	10,372.68	38,601.23	31,083.70
	Var.	5,503.32	2.21	1,120.00	25.46	0.00	0.00	1,071.57	3,151.56	6,076.93	5,405.70	0.00	107,599,179.64	1,490,070,791.53	966,466,131.37
Poisoned (1%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	36.80	0.00	0.00	0.00	0.00	0.00	0.00	13,143.20
	Max	255.00	12.60	246.40	249.60	7.20	7.20	236.80	244.00	253.60	250.00	0.00	156,178.60	166,131.00	219,090.40
	Avg	66.05	1.00	15.84	0.95	0.00	0.01	221.95	199.66	122.05	98.81	0.00	882.20	67,037.18	43,973.12
	Std.	74.17	1.49	33.43	5.04	0.13	0.19	31.73	56.21	78.03	73.32	0.00	10,372.88	38,651.27	31,063.39
	Var.	5,502.56	2.21	1,117.67	25.42	0.02	0.04	1,006.86	3,161.10	6,089.05	5,376.17	0.00	107,601,074.84	1,493,941,874.59	965,228,448.51
Poisoned (2%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	39.80	0.00	0.00	0.00	0.00	0.00	0.00	13,014.80
	Max	255.00	12.60	246.80	250.00	14.20	14.20	236.80	242.80	254.20	252.40	0.00	157,088.20	166,265.00	219,330.40
	Avg	66.53	1.00	15.84	0.95	0.01	0.01	221.95	199.10	121.87	99.29	0.00	884.51	67,140.64	44,139.47
	Std.	74.46	1.48	33.39	5.03	0.26	0.36	31.59	56.69	78.09	73.52	0.00	10,405.12	38,698.27	31,084.81
	Var.	5,544.98	2.20	1,114.62	25.34	0.07	0.14	998.16	3,217.26	6,097.91	5,405.39	0.00	108,274,860.43	1,497,572,415.35	966,492,706.86
Poisoned (3%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00	0.00	0.00	0.00	13,107.60
	Max	255.00	12.40	247.60	250.60	19.40	19.40	232.20	248.40	254.60	254.40	0.00	157,013.00	165,769.20	219,365.60
	Avg	66.80	1.00	15.84	0.95	0.01	0.02	221.60	199.62	120.22	99.54	0.00	884.76	67,315.36	44,370.52
	Std.	74.59	1.48	33.36	5.03	0.35	0.49	32.59	55.84	77.98	73.85	0.00	10,408.17	38,769.05	31,105.51
	Var.	5,563.69	2.19	1,113.33	25.31	0.12	0.25	1,067.54	3,120.00	6,081.02	5,454.05	0.00	108,343,407.02	1,503,074,952.94	967,802,481.63
Poisoned (5%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	37.40	0.00	0.00	0.00	0.00	0.00	0.00	13,287.00
	Max	255.00	12.60	251.60	251.60	33.80	33.80	236.80	250.40	254.00	251.00	0.00	157,542.00	165,957.00	219,490.60
	Avg	67.47	1.00	15.84	0.96	0.02	0.03	221.95	200.22	120.06	98.56	0.00	884.75	67,454.62	44,604.35
	Std.	75.04	1.48	33.32	5.02	0.60	0.85	31.63	54.67	78.09	73.80	0.00	10,411.69	38,850.89	31,050.17
	Var.	5,631.69	2.18	1,110.46	25.22	0.36	0.72	1,000.80	2,989.46	6,098.53	5,446.95	0.00	108,411,860.17	1,509,414,001.41	964,216,169.73
Poisoned (7%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	36.60	0.00	0.00	0.00	0.00	0.00	0.00	13,354.40
	Max	255.00	12.00	251.60	251.60	44.60	44.60	234.00	250.00	253.00	249.40	0.00	158,001.20	164,868.60	219,529.60
	Avg	67.28	1.00	15.77	0.95	0.02	0.04	221.95	200.15	119.81	99.07	0.00	883.06	67,504.58	44,903.65
	Std.	74.66	1.47	33.07	5.00	0.79	1.12	31.49	54.36	77.89	74.61	0.00	10,398.90	38,915.47	30,965.77
	Var.	5,574.99	2.16	1,093.51	25.00	0.63	1.27	991.53	2,958.31	6,066.68	5,566.59	0.00	108,140,018.32	1,514,457,585.90	959,411,911.60
Poisoned (10%)	Min	0.00	0.00	0.00	0.00	0.00	0.00	35.40	0.00	0.00	0.00	0.00	0.00	0.00	13,404.20
	Max	255.00	12.00	247.40	247.40	64.60	64.60	234.20	246.80	254.40	249.80	0.00	155,748.20	162,128.00	217,657.80
	Avg	68.33	1.00	15.74	0.95	0.03	0.07	221.95	199.37	118.89	95.75	0.00	878.16	67,444.00	45,336.55
	Std.	75.30	1.46	32.92	4.98	1.15	1.63	31.16	54.54	78.35	73.83	0.00	10,327.47	38,962.82	30,707.17
	Var.	5,669.85	2.15	1,084.01	24.84	1.33	2.66	971.28	2,975.74	6,139.18	5,452.29	0.00	106,676,969.06	1,518,177,548.27	943,247,524.91