

Table 2

The results of computing the value of mean shift between hashes of the obfuscated and source code malware

File number in the dataset	Source code hash values	Obfuscated source code hash values	Percentage of malware samples computed using only convolutional neural networks			Percentage of malware samples computed using mean shift method in convolutional neural networks		
			Training epoch			Training epoch		
			I	II	III	I	II	III
1.	d447bdfde77eaf4eaedd feedc84a2aee6ebc87ca	e98e4b2aaf798cadfa4a a2aab646d4f8ed76edf2	29	31	30	39	44	46
2.	8eae6e2ccaa6e8afedee dcae9c8ddabeedeccc8f	aef762b2edb72c8869af ee2dc8b8a24a462aee89	35	31	34	48	52	53
3.	6ea2f4a8472f7cb98c9d 97e77928bf2fee2eeaea	e7abd68efcc4dfbea48d 74e7ad46f968a4eaad9e	24	23	27	34	39	38
4.	78a2da9e2debd49a2eff ceaae9e86ed9f9cceefc	42bde9eede62efaefeee decc7eb9dd9a6798a8	29	31	28	37	41	40
5.	6bc4ae8f8bdad98ee6ad aadeb64fdae68e79b788	ca6de7aecf6faaeef8bc 6eae2bd4d9aee86c6c9	34	31	35	51	55	54
6.	f7a7e4cfbaedadfa8a7c 44e9722aeeab9eeab9	e8fee7eb2fa9ed2d2d9e ce48efe8b498ba9b466a	60	58	54	74	76	77
7.	a484bfb9e74a2a47d97f 9ef7c9e6cde7289a8647	b94ceee4d8db7fac64a9 c2de2d7f44dd44fe769e	40	41	45	64	67	68
8.	7e2e828c9daeb2a9848d 6bc4adea442e6b22fc48	2dea6bfcae8bedda4c7 bcdedd8f8daf2aedde78c2	30	28	34	46	49	52
9.	ef8ea7cfe647d2ea69a7 b2ebb677ccedfa2eeac8	bece7eecfefae6dee4ea 6de67c87dfdb9282ecf9	30	37	34	48	54	55
10.	2e1a948fe9bfbfeaddf 249eedee82fb26e2dae9	b747e6f6eb29a6a77ee7 dd48af4e6c27b27fbc4d	34	37	38	64	68	67
11.	8eb7ad2bdd48ff6c6d47 b427d9c8ee7de9adc4e7	df4aeaa99ea7726def6d 4d7fe699eab94dea7dde	37	39	38	54	59	57
12.	d9ecd7fe8c6c424dbfea e7f6b77eaeae7df86922	eb8e4dd2da8b8da4a8eb 9defe88a984aa9474dde	35	34	33	57	64	63
13.	2de7afd8cc49ee2e6ce7 c4a7ac694ceb2e7a9ab6	48eed6dde4746ce86ebc edba769d6e27f9b2c6a	37	40	42	67	69	68
14.	ee9a6aefdfbdf4f894c afbe7aee9c2ddf79edae	d4aea2e4afb749dcabe7 8ead9d6b86ddaf2dcfee	49	44	41	61	64	67
15.	8dedaac86249a7da676e 7a8de78e6baece649de4	aee882db9aaedc968ed24 aec9a7dfdeaede449ea	27	29	28	42	44	49
16.	9cca9d67a2eedae4a82d 8baefb46a6afc8ecd9ad	dfd4ee2deeff2aae49e bed2e4ff8e4f2efa9e28a	32	34	31	46	49	52
17.	ddce98a7c9ed6baadea d7eb227de22eacc824f67	aedeb7e8e7aeaa4bc79fa 24eae4d2ddeabadaae	20	24	22	37	38	41
18.	3d1ac22eaae8d8eaaca2 6488e87996deae6eefa	cc7dafabffac7749eaa eb76ee8cf299de292deb	42	40	37	78	81	82
19.	eeb47e8d79a8ad7aa9ee 264de8ad9edabee2c7ef	762ebbf44beefaaae 7ec79caddc6f98e87ee286	45	49	47	82	83	89
20.	62a6df6ac998ad4cce2 626e64af2fa2b67adac2d	d9efaaedaab2ddeede 99ec7a2c9424aa784cdfbe	46	49	52	64	68	71