

Table 3

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.	f33541921214fbf3dfbf9f54fcf45b72c107fc3b	7320828c9153b2f9848dcbc45d354423cb22fc48	47	49	48	40	39	37
2.	4417c77cf84f8474b91c35c0943535558748fb94	f02cf4f4f7c4c40c7d71d8c7f5ff1c4cdc9448cb	39	37	37	32	30	30
3.	7320828c9153b2f9848dcbc45d354423cb22fc48	214fcbfcf48b4d1f4c7bc3d18f8d5f250d1478c2	42	46	44	34	38	37
4.	81d084423f59c5f75592304d07c4f23dff9cd45c	132ff355575ccc05fbc41dfbf4bf20851209579c	46	44	41	37	38	31
5.	c589bd7f40cfb4449338d57c08d331184874479f	1c93542dc4247454d541f755b89f49cbc0174d12	52	55	56	44	43	46
6.	0f80f7cf3c47d24fc9f7b20bbc77cc41f5230fc8	b3c0730cf3f50c134405c14c7c871fdb92820cf9	50	53	55	49	48	46
7.	ff3541921214fbf3dfbf9f54fc1238cbc107fc3b	fc74c2cc3f512121fffd791890b558448b38773	34	35	38	28	29	24
8.	f44f9324c94fb748fbbdc3cfdc3004348c240554	f4cc2dfc4d7494f9fc0fbd9d184f8f1c0bd4bdc7	57	55	55	42	46	45
9.	f7f704cfbf415df58f7c4449722f4435b9330fb9	38f3470b2ff931212190c4483f38b498bf9b4ccf	42	44	46	39	42	46
10.	d355948f39bfbbf351df2493013382fb2c321f49	b7470cfc0b295cf774371d48ff43cc27b27fb341	49	52	55	38	39	37
11.	80b7fd2bdd48ffccc147b427d9c8047d0951c437	1f4f45f993f772cd3fc14d7f3c9945b9413f7110	55	56	57	42	46	44
12.	042085d903fcdc47247fcf03c1d375f4272db8d8	2cd1890b3b31c24df8492dd4287b8ccb7c427308	66	64	63	55	54	53
13.	d90cd7f38ccc4241bf3537fcb773f35371f8c922	0b844d12df8b81f4f83b9d4f3885984f59474dd3	42	44	49	33	33	34
14.	9ccf91c7f200d504f82d8bf0fb4cfccfc83c19f1	dfd4302d40ff2553493b3d244ff844f20ff93285	28	30	30	24	25	26
15.	79d394988d5b1f484fc33c94733fdf93d5dc401c	45d3554c9414ff819c5f5d95741c7dfcff44ccbd	29	30	33	19	19	21
16.	1c52f5ccccf970cc50217f3c0b194143f28fd740b	28d418c4b103c14945f4bc241751505420f5f708	37	38	34	33	30	31
17.	2d37ffd8cc494420cc47c4575cc94c3b207595bc	48431c1134474cc08c3bc31bf7c9dc027f9b2cc5	42	46	44	49	42	44
18.	ddc09857c94dcb5fd05170b227d32245cc824fc7	f310b7383753f54bc79ff243500412d1355b15f0	70	72	71	60	61	63
19.	8d0d55c8c249f7dfc7c47f810784cbf4c3c49104	5048821b9ff3dc9c8412453c957df1454d04490f	37	38	32	30	31	32
20.	309fc53f1fbdf4f894c5fb47f039c2dddf793153	14f052045fb7491c5b37805d91cb8cdd5f21cf44	49	48	51	44	42	46