

Table 6

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.	4abdaace63acefc3ec6e329eacffcececbdbbfeef	4c6fcf6ecae37ae7b9dafd9c3c4cfaab6c3477fc	27	29	28	45	49	47
2.	73c7f6efef97732ec9ac49cc44f7ecae3cfe6ed3	4aaca369c2ecac96e2ed46dad3c73669adaad6dc	31	32	30	42	44	40
3.	c323cc4cefab7e72cdae a9279fadaa3e7e327edc	a6b347a4a4c92c6c47ab2a26c3e634c4cb69c7bc	32	33	0	38	42	41
4.	67e23c3c3c6c23cca7c7b97e6d2caddad7eaeccc	7eeba9ccee2c4b3c4efed6cec94722c3afe49c33	29	27	34	52	51	48
5.	c7e74ceafbb7eacce6f3c3cadde29e4349cec799	beaed9a96fae94c69ccbcd2c3bcce2e9dea22b29	44	49	48	55	53	52
6.	bceac3deef73e9a2c6c3dcc76494bf2663ca7dc	affefa4ecfe7d2efc9fc3e4a77f7fdcce2a26e9b	22	26	27	32	30	34
7.	c6c7bbca9fcb96c4fd4ac93aeb9c444c6dbe446	722afc7e6abadaee6994c6dabdc4cfc73ddc67f	30	33	32	38	39	42
8.	926caa2b2793ecbea39daced77eee2f32bfc4c2b	434c7ca2a2c6cafe66d9266ea4fc4bc9b97236e9	11	13	12	23	22	26
9.	46ccfcbafbaa2bcb9343ee2ec33c46e696ccbacc	c69a7ccce34c92e3ce32ed2cc4ecafcebfcc4fdc	30	32	34	42	46	48
10.	c2dd9324e2d2aa29373cecebc77e9a7a32ee7c92	cc6336cbfec4cc63ae2ec99cc3746ad33f6c4ff6	31	32	32	37	39	38
11.	6ea3a2e2eb4dfecfcceaeced2349aeae729a2b3a	47c4e49d3b3aec7ba9adf4924d36eda26fa4f2ce	44	48	45	59	60	59
12.	9ec2ca23ccdb4c6afeccaeeda4c6e36b62cccf	a3afb327733e236b23a7fafa2afccc7ecf927ced	58	59	65	72	74	71
13.	74a7ceacecccd39cad7ecccebc7ede7c6aef4cb2	63cecb9acf37ebdf2c747e3937cabd4f9aeaf9c6	65	60	64	71	76	77
14.	dceaccd94ec96aa9adb c2742aec4cfc49c264232	6ec4aee4ffe632cdead c369eadace6fdfe32aaed	70	74	71	82	84	88
15.	ca22cbcfacbf7492aa3afbecbccc4b6ef9ee6fbac	bccfdc244cdb2acc6d6769d636addc6f7f72abf6	49	52	52	60	62	61
16.	cfe44c2ff3e37c6629ca36224e6caaeaadcdb264	3cce93aee4ab72baec6becabc24b4f9ed9c2eacf	37	39	37	48	52	51
17.	ea6eceb4476af9cc9cacccc29ab3fa7aacbe2673	ae337ea696c6ec2e6e39f2a2cdceae73cd34f29	47	49	49	55	58	57
18.	ae337ea696c6ec2e6e39f2a2cdceae73cd34f29	ee2b297ccebcbca9a4da cc2effc66c6e374cdb9c	19	18	17	32	34	33
19.	ced3eeccc7262aadbfec34c737accebf3a64ecc4	c9cc7dc9dcee2fa4c4eceaeb34ca9b77aefcd26	27	28	32	37	39	33
20.	2dafeccaca42f3a33af4bebe6c64a94c4aceeda	3ca6befa6d2aec3c3c43caf64accacecb2fecfca	30	30	34	42	47	44