

Table 5

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.	b6a1b93897f6b2ac3f1b a63fc3f3f9fc9161bfa1	cf9711a7f7a1fa6f9bfa 7cbfbfc979fa1b11af97	30	32	31	49	48	47
2.	a1bfcf7f99cb9717af9 1c9f3813f38769f169a3f	c1cbf9a11a93f6af2a96 c6f1f6c1f61919911c38	30	30	31	51	52	56
3.	fa1afc71b1911acf1b1f 6fcfaf1a6191caf7c71	9cbc104179f9ac9f9f6f 12383f91a1f993f1a9fa	30	31	32	49	49	45
4.	cac1ac138ac71acaf1ab 1cb2aca3f3f938cfa1cf	c17c63fa1f1f938fc11a 1a2a1ac63fa1138f1b11	28	27	27	52	54	55
5.	67bf3869a961b99f1046 9afbf13812abf9ca19b1	fa9a6a1f9a11917a1a6b 117f1a1bc79a6bfa93fb	30	32	32	55	56	54
6.	1fb669f1a1cac7a1b1c1 f199c38c16911caf6c19	f1b2387ac1cfa913f9c7 138afbfc1ab617179b1a	29	27	28	49	47	48
7.	c91a176f1cb7afa3f138 cac13fbf91a1b917caf1	7a112a13fba2a767fac7 f1a3f7ac19ab9a61ac9a	30	34	32	51	52	53
8.	0bfb107f638109cba1a 6916f9acfc9381c911a99	c6ca1a9ca1a66c3fc9cf ba3f38cf73ff9cf1ab91	34	35	36	58	57	59
9.	1f791a238c19caf9f967 c3ff11cbcf9938ac9f19	f97a1616117f713fb2a f99fc71b382a1ac7a11c	30	31	32	61	62	61
10.	38cacb912a1a9f1f119 c13f9a1638fbcfaf97fba	f116ca1c38b3f961cf1f c9fa7a1c1fabafc19cba	30	30	34	55	56	54
11.	9faf61f1f172a3f1afbc abaf7f916bb69afcb1f	97af6a9afacba3ffa199 fc117c6f1afaf93f38a9	34	36	35	61	63	63
12.	f9a9b1fa9fc96c967c3f 3fa13f9f69111a1fab9c	97af6a9afacba3ffa199 fc117c6f1afaf93f38a9	31	32	34	59	61	59
13.	3ffac6f6ac1ab1a6638f 12a3faf1c38a92a13f3f	3fc119bcfa3f1f119ba1 389cf11acf63fcb19191	30	31	29	55	54	56
14.	9afa16fa6f67ba93ff1b fc9f11a99c9c1cf916a1	f7f19a19fbc6381fcfb1 fa7c1b9f9f19f91f11ba	29	28	29	49	48	49
15.	b1971f91a1c9c386f9cf c1f9fa9caf7f919fac61	f7f19a19fbc6381fcfb1 fa7c1b9f9f19f91f11ba	31	32	34	50	55	54
16.	1c991c3f1fcf11abf1c1 c17c111ab117ac38f9fa	faba969a1cfca2a7caf7 c3fc991af999cf116aca	30	34	35	51	50	50
17.	cab119a67af6f9f9c79b f13fb13861aca1af991c	a1fa99a1afca9f617bf1 a93fbc97691991fa911c	27	28	27	47	45	48
18.	b17af1a1ca1c11f1f1c1 bf7afca7f7ac38193f3f	7c9a9fa1383faca3fc1f a1fc19a17167a9f9c3f6	30	31	32	45	42	45
19.	1c6c9ca9c61a9991c997 6fc3f6f9f93f19c9a116	7acf1fa619cacbba1cfa af913819cfac19fc3f1f	31	32	31	49	47	48
20.	a1104a7f7c9fc61ca1bf 1aca1c17cfa911a911fb	1c1c1faf691a119afaf1 fa67cbf383fc1abacb19	30	31	32	48	47	45