

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.	fee547927274fbfedfbf9f54fcf45b72c707fceb	7e20828c975eb2f9848dcbc45de5442ecb22fc48	30	31	32	27	29	28
2.	4477c77cf84f8474b97ce5c094e5e5558748fb94	f02cf4f4f7c4c40c7d77d8c7f5f57c4cdc9448cb	44	46	45	30	31	35
3.	7e20828c975eb2f9848dcbc45de5442ecb22fc48	274fcbfcf48b4d7f4c7bc7ed78f8d5f250d7478c2	46	49	44	31	32	34
4.	87d08442ef59c5f75592e04d07c4f2edf59cd45c	7e2f5e55575ccc05fbc47dfbf4bf20857209579c	49	52	53	31	32	33
5.	c589bd7f40cfb4449ee8d57c08dee7784874479f	7c9e542dc4247454d547f755b89f49cbc0774d72	52	56	57	40	41	42
6.	0f80f7cfec47d24fc9f7b20bbc77cc47f52e0fc8	bec07e0cfef50c7e4405c74c7c877fdb92820cf9	37	39	38	30	29	27
7.	f5e547927274fbfedfbf9f54fc72e8cbc707fceb	fc74c2cce5f72727f5fd797890b558448be877e	34	36	35	29	29	27
8.	f44f9e24c94fb748fbbdcecfcdce004e48c240554	f4cc2dfc4d7494f9fc0fb9d9d784f8f7c0bd4bdc7	42	46	45	30	33	32
9.	f7f704cfbf475df58f7c4449722f44e5b9ee0fb9	e8fe470b2f59e7272790c448efe8b498bf9b4ccf	46	49	43	31	32	30
10.	de55948fe9bfbfbfe57df249e07ee82fb2ce27f49	b7470cfc0b295cf774e77d48f54ecc27b27f7be47	49	48	46	31	32	34
11.	80b7fd2bdd48f5ccc747b427d9c8047d0957c4e7	7f4f45f99ef772cdefc74d7fec9945b947ef7770	59	61	65	32	34	35
12.	042085d90efcdc47247fcf0ec7de75f4272db8d8	2cd7890bebe7c24df8492dd4287b8ccb7c427e08	42	49	48	30	31	32
13.	d90cd7fe8ccc4247bfe5e7fcb77efe5e77f8c922	0b844d72df8b87f4f8eb9d4fe885984f59474dde	49	51	51	31	34	32
14.	9ccf97c7f200d504f82d8bf0fb4cfcf5c8ec79f7	dfd4e02d40f5255e49ebcd244f5844f20f59e285	49	52	56	30	31	32
15.	79de94988d5b7f484fcec947eefdf9ed5dc407c	45de554c9474f5879c5f5d95747c7dfcf544ccbd	46	48	48	31	31	30
16.	7c52f5ccc970cc50277fec0b79474ef28fd740b	28d478c4b70ec74945f4bc247757505420f5f708	49	48	47	31	32	30
17.	2de7f5d8cc494420cc47c4575cc94ceb207595bc	484e7c77e4474cc08cebc7bf7c9dc027f9b2cc5	27	29	34	22	21	23
18.	50c09857c94dcb5fd057f0b227de2245cc824fc7	fe70b7e8e75ef54bc79f524e500472d7e55b75f0	27	29	31	21	22	21
19.	8d0d55c8c249f7dfc7c47f870784cbf4cec49704	5048827b9f5edc9c847245ec957df7454d04490f	39	38	37	30	31	32
20.	e09fc5ef7fbd4f894c5fb47f0e9c2ddf79e75e	74f052045fb7497c5be7805d97cb8cdd5f27cf44	42	46	49	43	42	40