

Table 4

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.	b9b1d8b87140f977969c90d716879d7416c14400	1f715f10b18677064f17400dc9756970c1740c57	30	31	33	45	48	47
2.	4f0771747c9486dc4fbfd5870c078f4f005901fb	081cdf5f64f50015d5ddf5678bd75fdc01b7cbd1	35	36	34	45	48	46
3.	d86c9c51864f4f1dc4f76fccdd6d941dd4f891dd6	77840d76d1c1cbb508411f9151d9cd7cd948d75d	38	38	39	49	47	47
4.	bd77fd5181dc004dd181bd714857d75c71d944a5	784f9d7057df5c54f81d7dfc097d7d674fd9cdf6	29	29	31	42	41	40
5.	85b1d1767546f9d1c71b41d4b1576158107491d8	5dd74f74fd879d6d7bd119f4bc1761d910d74fdc	33	33	31	37	39	39
6.	dc990cd40fcd0d1bf0cdc1781015b1075c51f9f1	f7b59691d8f81cc7c1d7cd4c19d1d4f1cf0d6581	30	31	32	33	35	31
7.	b4f7df1d7081c776f98dc049459c1f7d10145c6d	f7fd91d14bc615d48dbdd17c1b9f9f4ff10fddb5	38	37	38	42	41	40
8.	91f506f56d67b19dd4dbdc1d1d519c9c08410610	f7fd91d14bc615d48dbdd17c1b9f9f4ff10fddb5	38	38	39	42	41	41
9.	4fd1c6d678d7bd166754088d4541c51598c0f44f	fdcd09b8d544df101b71159c4d07cd64fcb19191	46	48	47	52	54	59
10.	d179b045148168967844f4714d1d610015d45b89	175d64f545cb1fd470994c0d786417d1d1fd5551	34	35	36	39	38	38
11.	9d5d6dfdfd7c8dd05fb85b7474916bb64fd8bb1d	175d64f545cb1fd470994c0d786417d1d1fd5551	37	38	38	48	48	47
12.	51c1cb9dccc79fddddd9c0dd95d675fb845f174b7	d4f6810c75b4d161cf0d8145771cd45b548098b1	33	34	36	42	41	42
13.	14794fc81c19c5d14167cd4f008b84194f589f09	497516d6dd7d7f0dfb884994c71b158801875d18	40	40	39	49	48	52
14.	dbfb0b8c0578158b5d16106f918d894f1c4f0519	c6c5019810566c4d818fb7d451c474dd18d05b91	41	42	46	52	56	58
15.	c94f176d18b71474d017c78d4dbf4f51b4f78740	75d0cc0f4b58c767f5c7f054f71c197b15601c91	44	46	48	45	48	46
16.	04b669405085c75db0cdf1918758169d0c7d6c09	ddb88577cdcf190ff9874f51dbf8d7b617d71b05	49	48	44	58	59	61
17.	67b457695160b994d776914b40770c8bd9c719b0	f5976504951d9d77176bd07f151b87176bd4fddb	41	40	38	49	51	52
18.	c7cd5cd771874fc1f17b0cbc8c5f4dd94fcf5084	817c64f1dd0d171d8dd7158817c6df4f057d0bd0	48	47	47	55	58	59
19.	4707fc70b4f04fcd0b1f64c5d7dd16d4f87d787d	18bc177d794978141d6f1cc14f9170d99f44f9d7	58	59	56	54	59	59
20.	70bdc47d4fcb97d77f9089d151ff17769d064fd4	818bd95dd794d6748816864d46c146d9d910d857	40	41	42	49	55	57