

Table 1

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.	96191775819ee5d1e6e91dcc6d91e8de91c1555e	c11b9e6198ae95d179adc169b18e61b8d19515a1	31	35	34	52	59	58
2.	7d7dc6ad9d11181a796611a91ed1be18851e5671	185e87819acc11ee8a9915b9e1d9118c11e8d96e	30	34	31	49	55	56
3.	b1891e9d7cbaad51d8881971ad717971111151b9	9a1967e9ec5b91ce11e11711e68151a6bd1d5b5c	31	35	30	56	54	55
4.	768ae91971dce8b16dec16c816176d1acce65e9	998ea9a9a9d195a1e6b97c5ce6e11e5b6ad1511a	30	31	32	49	49	47
5.	897a19c1bdee11cce9d15b9ccd1ec511b55716a5	8ee1e9ba991ead95517ecc1eee919b71e95a1598	31	34	35	48	54	55
6.	eb1ce6869db1e55d1b7e7d1d7e17596a111e51a1	e1ce91151191c16111ae9815bde1155eec97757c	30	31	32	48	49	47
7.	a1ea16158eca5bce11e11797eb981d9696eede	5e511111777977ea1e196b1e515915118bcb5da6	31	30	34	45	47	49
8.	1511117a61e7ee988bedeccc69a7b57da9e11919	a11511dd191561191c151668be16adc791598e91	31	32	34	45	46	42
9.	ac5b6571781e85e1911c7e6e1ac168d68e5ad168	1e1e65c19b79cda791abb7a18d5671e9a891581e	30	31	32	48	47	49
10.	6cbe5a1e75611beb11edac1ea19e551c1ce7519c	5981919b9c191e81de118a1117899e19ac9e1191	30	34	31	46	45	46
11.	db8d81ebbabbcb1bdb96e5c11e1511b98d1188ebe	c13211d111155ae9e1e668cea5151e1e111ed5cb	30	31	32	48	47	49
12.	d5ede9d8eb181e1a6e1161e181de9a99119e8e91	5597cd991cab1a1d1579b1c7ba9111ae598199ad	31	30	32	44	47	48
13.	189e1b1991111deee6eb11799b55159c188e1c6cb	a9ec119b1edeeeb11a6115e969e91edee96e8	30	31	32	47	48	49
14.	6878e87c115d11d1178cee6ae7b61e91acb911b1	c1e71111e917d5aa711786ba5d6eac1e155d8c9b	34	32	31	47	48	49
15.	b7bce91e761db8e1919a1aee1911ee8b7791d18e1	5c1b111eec998ecd6e878cbdae69a179ae85e566	30	30	31	49	48	47
16.	71c5b1987ad18119e178911be5877be17a511111	95be1716a9be819e66a9699b97981e6eedad11e	31	32	31	42	45	45
17.	91a661a11a1758eb168de881ee9ad761999a1e5d	e8818811a57eb89ed5ded987e15e198179b16c89	29	30	31	47	47	48
18.	9aa119569e9b17e69cbdb8eb99e9a691c11e9b61b	11d81c7e911a78cd6aba111c6b17181d1eac5eca	27	29	28	49	41	42
19.	9111191b76e587aa181ea961d9cdc71ea191e6ba	dd1111187115151e111bd89151919de61e151b1a	26	27	28	44	46	45
20.	c651d88b5e7c11e511c181c91aebabdb98b7eb95	9e611cc1abde8d7dc5d1eda1e66b177a191ac61e	37	38	34	49	51	52