

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.	B9BE58B87140F922969C905236829D2436C34400	EF73AFE0B3862206E112400DC97A6920C1240CA2	4	2	9	8	19	39
2.	E1077E747C9486DCE1BFDA820C078FE300A901FB	081CDFAF631A003A5A5DFA678B52AF5C0EB2CBD3	6	8	7	16	27	42
3.	D86C9CA3861E333DC3376FC5565943551389EDD6	72840526D3CECBBA084EEF91AED9C52CD94855D5	18	9	9	24	52	78
4.	BD72FDA18EDC004D5181B57E48A757AC2ED94444	783E9520A25FACA4F8152DFC092D7D67E359C5F6	21	22	24	8	10	12
5.	8AB1D3267A46F953C73B4154B1A261A8E02493D8	AD523321E582956D7B51E9F4BC3763D9305231DC	3	7	3	34	54	82
6.	DC990C540FC50DEBF0CD C178101AB107ACAEF9FE	F2BA969ED8F8ECC7CE57C54C39DE5333CF0D6A8E	11	16	21	16	28	65
7.	B137DF3D2083C226F985C049A49CEF753034AC6D	F7FD9ED34BC6EAD485BD5E7C1B9F9F13F30FDDBA	10	9	12	16	27	46
8.	9EFA06FA6567BE9554DB5C351DA39C9C084306E0	F7FD9ED34BC6EAD485BD5E7C1B9F9F13F30FDDBA	15	15	17	31	46	79
9.	4F5EC65628D2BDE662A408854A41CAEA98C0F44F	F5CD09B85A44DF103B21EA9C4D02C564FCB19191	32	30	42	38	37	48
10.	5329B04A348368967844F421453563001AD4AB89	37A56E3A4ACBEF5420994C0D7864125E53F5AAA3	8	11	16	27	48	61
11.	95A56DFDFD7C8550AFB8AB2474916BB63E58BB15	37A56E3A4ACBEF5420994C0D7864125E53F5AAA3	12	13	15	27	41	68
12.	AECECB9DCCD29FD5DD9C0559AD62AFB84AF374B2	51168E0C2AB45361CF05834A721CD4ABA48098BE	11	12	18	36	49	73
13.	14791EC8EC19CA534367C54F008B8439EEA89F09	497A16D6DD757F05FB884994C71BEA880E87AD18	18	29	25	37	49	68
14.	DBFB0B8C0A28EA8BADE6306F9E8589EE1C310A39	C6CA0E98E0A66C45838FB254AEC474553850AB91	14	21	29	52	58	71
15.	C91E176518B7E42450E2C28D45BF31A1B3178240	7AD0CC0F4BA8C767FAC7F0A4F7EC192B3A60EC9E	16	19	28	29	43	68
16.	04B66940A08AC7ADB0CDF19382A8169D0C256C09	5DB88A72CDCFE90FF9871EAE5BF8D2B617D73B0A	11	19	36	39	56	73
17.	67B4A269A360B994D7769E4B40220C8B59C219B0	FA926A049A1D9D72126BD07F1A1B87326B5E355B	27	11	29	26	58	61
18.	C2CDACD22E871ECEF12B0CBC8CAF4559EECF0A84	817C64FED50532E58DD21A8812C65FE10A250BD0	15	16	26	31	46	74
19.	4202FC70B1301EC50B1F64CA525DE6D31825787D	38BC177D79492834356F1CCE4F9120599F41E952	17	19	21	28	37	49
20.	20B5C47533CB97D72F90895EA1FFE27695063E54	818B59ADD29456248836864D46C146D9D930D8A2	8	16	34	24	37	58