

Table 8

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.	cb4ea2f8b4cd8e2b8b2f8e494a2edbe89ab8efb8	fbec333dbb48edf9dceb f24833fab2dafe4de2af	30	31	31	46	48	46
2.	bacdb3f8ebbeeb4a2a3abaffb2fe9dffee4c98d2	f8cff2d888ffcffbba3bf3bfe4d84f8eaa4eb8a	33	35	34	52	54	55
3.	ffec4f2faedd2fed2bd fbeddeb44afcfa4ccdbba	a3f4eee2933b8492effde d9bdaf3afe9db9322cd	21	23	20	37	42	42
4.	4caabfb39db8ffd4cb4c4f93adbfeffaba32ed93	cf9fbadbb3839fff8caa e3892f3a8dfc2ea3afe2	40	40	41	64	67	67
5.	4fbfe324edaecbdeacacaeba2388febfb822daf	ba2bbaacb8babbdea3bfa9ad3aa8b3fddb4babe	45	43	47	63	67	64
6.	befece4a4dde8eb8aefefcb3eccf9a28fcfd9a	498dcffefe4d8fb4b3faa e2ba9d3de33ba2e4b3d	30	29	31	47	49	49
7.	fab8299f9fe9feaaaa3f4afab2eeeb4daaebc3	8f8edeeeb23bdeffffe abeddc8b9fbaf848bcbf	37	35	34	55	59	57
8.	b2bedb38fffb8efde22bbffd22cb8daa8bae3f8b	bba2e89f42bf29a2d3f24 b23ca34f2db89bb4cfa	46	43	40	59	64	63
9.	aecc8988cb2afcaa3dfaadc99b8eafbec28acdac	99a84432fbfbca8defffb9fbcdc3bbfde399ecffa	47	49	45	62	62	64
10.	f44aea3acbdfeab24c9b4e2ba2eb9afb42dfbfef	ef2ddac93d43ee9a98ffeaececaacd4dfae2fed	19	22	23	34	37	35
11.	be9b3ead8aef9eefdf884bdaff2ecbaedb9bb4b9	b8bafa8fff3aff2fca23be daab82faaf8e8f83ef	11	11	10	24	29	28
12.	bedffd28ebbb4cbbafca24e4ffe4fbfffecfdee9	bce2da9ffabec9fcd34fef98af38a3fffb4be2f	26	27	28	37	34	38
13.	4ef3fbbbfed3b8d848ff8fdafef98bed48faca9f	afbdb3ff4389f8eefcffe8a2dbef83fef2be39d3	55	53	54	78	76	74
14.	a3f4feaea3a4fccdeaa3d4febcb3faa3beff4eab	fefebfd2ff8ecaf3bb4ba24ef3299fbef4be8bff	46	43	47	64	68	62
15.	cdb2debfb4f34e2af8e3d2a9cab8fdaf2ebc9eaa	4ee4e8d9aafb2cef8df3e3a4e4ebdbfc8f4dfe4	27	29	28	44	46	48
16.	cbae42ea2842ffa984bbbf2a2f434f9af4e3b82	aea84aa3fffd4f24bfafe4f3a8e4acfae3f9ead4	32	34	38	57	56	55
17.	eff4fefbacdfae4abcbaead29befbb42daffefab	a98ba3ca44f82fe49ddb4fbffff4be24ab8433ee	22	22	23	35	37	37
18.	29fb2fffad3ec8eac8fb bff4fc88b39db3b3e4ee	feeee3daf3fa3a3a3afe89d8323cfa48ebafff8e	19	22	22	37	39	39
19.	afaa4f8ffcb2cda2bfaab4af98eff3aa84abb2ab	88fd82fbf33d38babe9ddcd9bbad4cbe3eff9b84	24	26	27	48	54	53
20.	ef9f9e4efcf8eef984bd dadbaecf2afffea42b	a9adfa9cf2ae2384afe fae3ccc32aaabff933ceb	34	37	34	49	52	54