

Table 7

The results of computing the value of CTPH and the editorial distance between hashes of the obfuscated and compile source code of grum software

File number in the dataset	grum file hash values (128 byte)	grum file hash values (512 byte)	Editorial distance	Percentage of malware samples calculated using scdeep	Percentage of malware samples computed using convolutional neural networks			Percentage of malware samples computed using capsular neural network		
					Training epoch			Training epoch		
					I	II	III	I	II	III
1.	973bc36cce34be4de669 3fd868de96636e6ceb9e	48e4e6786d696eb46008 364edde38dd6334edbccc	33	34	30	32	33	29	28	28
2.	74d60ed4c64603fe666e 87d060d390d94d7887e4	b49e8d7c4e6bc3f3660d 6067eb3f448e8407d468	30	37	41	42	44	31	32	35
3.	c6dbcb60948c4447b9c ec44c886dc3c97b74ded	6dbe47d4d30ed3fedc8d 64967ccc7cb9b76dbd74	32	41	39	38	37	30	29	28
4.	d0c7c4b9d7e369406639 9d4e3d86ebd86e908d06	96e06974e48d3f33f3d 494b6ded4746d84be7d9	33	42	44	46	45	39	38	37
5.	4308e4bb33e88edd39e7 79e9d43b4e068476e4ce	4bcbe3d996c3e6d3db64 bded4d3fe674d4b8e69e	30	44	41	42	45	39	38	38
6.	634bce6de66d8d04b643 d7ec49968e94ece3ccb7	e6990e33f3f3fed6699d cdd0d6bbbcc3373ce4c3	36	40	37	39	41	33	31	30
7.	9e63b978e6b70e40edd4 40d463d8c48c3643de96	bcc04e699cd7e783e94e4 4e03fd3f6e66e6d834b	35	38	44	46	45	46	48	47
8.	bd63decd443b7be7078 edc86766e6083f839304	e0d3ed3fdbde93f479e0 666bdc66694bb03f9e30	30	34	41	43	42	30	33	32
9.	ebc43e969c3c466dd79b ce846678d88d366dd467	d374433c39844e7606d 68d9466c736d73fd74dde	33	38	42	42	41	39	37	37
10.	0e8c0d3edcb9d608cc49 0b6ceb3f8374e6d940dd	6e74b736784de673d6c4 34cd7969e0676e83f78c	34	38	44	46	42	38	34	35
11.	9e99d0ed40c443fc6b06 3f464e63cdd9cd86cd4e	446c834bede7e834e4ed cd3d6e9dc9c6c86496d7	35	36	42	46	45	30	31	32
12.	6e4306e6ebd4e8d48e4 e8ed63e94e0e76906b34	e7d3fe9d3b34ec7b090d 4e96ed36ed46640e468e	33	41	40	39	37	32	34	31
13.	9e86d46388ddbe8604ec d03fed4ec6e36b6688d4	0304b367733e636b6307 7844604ccc7e849678ed	33	43	46	49	48	39	38	38
14.	d445ed6443e37d6669c4 36663f6c00e40d72b66e	38de9303fe0b76b4ec6b ec0bc6ebe49ed9d6e484	35	45	49	48	47	40	39	38
15.	5de4d8d93fd964494db d67e64ecec4de9c66e636	6e8e43f044e636cde4dc 369e4d48e64d4e3604ed	32	34	39	37	38	40	41	42
16.	d066dbd408b7e9644304 be8bcccbe6e493f64b0c	bcd4d863fddb60cd6d67 69d6360ddc6474760b46	36	49	52	55	54	44	41	42
17.	7e078e08ed88d39d0d7e dc3fbd7ede7c64e4ecb6	63ce8b90d437ebd46d7e 7e3937c0bde490e049d6	31	45	49	48	48	40	41	41
18.	e06e8eb3f76449cc980d 8dd694b3447048be6673	0e337e0696c6e86e6e394 606cdce03f738d3e469	36	47	52	55	54	40	42	41
19.	0e337e0696c6e86e6e394 606cdce03f738d3e469	3f6b69788eb8090ed4 cc6e4486686e37e8db9d	33	39	46	45	45	40	39	38
20.	8e8d33fe8c766600db4e 3ed7370dceb73063f8de	d9d87dc98dc3f644ec3f 8e0eb3ed49b774ed4d66	34	38	49	49	51	32	34	35