

Table 4

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 (20 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.	cf2832dbf75d2528cc5c 0d8f5dbc29f7dfdc89c8	d98a2d5fc757ccc5b2c8 f98788d8fdcf5bdcf77f	30	35	34	35	35	30	31	32
2.	c7b7fd2cf8dfdc03c828 cff9f9cdbc288a2d8cff	f85a28dfdbf2d7cca27f d7d9cfc2d89fdf87fcfc	32	36	37	39	38	31	32	30
3.	dfb75c59f99fca278cc8 9bc8c5c8259bc8222b7c	c252d992828d9b8cc877 ca29bc8f89c7ffcf87dc	31	35	41	42	40	30	31	32
4.	98c878dc58ff5fa2d7fb bc2792f8c5c58f7ccfcd	fd89c2cb7f9fd577fc5d 8dc5cfc7a2f998cfcc9f	31	37	44	42	43	41	42	43
5.	8a22d7c8cdfcdcb2cc2d 97f9cd88cdcd27c5d59b	7cbb2c5d5c27f7ccdcf2 99dc9270fc858fcdccdc	30	33	37	34	35	30	29	29
6.	d58c7fc8c1088cb2ca2f 97f9c8d98dcd25c7d59b	2dc5cfc8c787c0b2c10f 97f9c8fcd78d25c7c02f	19	28	31	32	33	35	37	39
7.	d9c92d2cf5bdccdc7a2 2d8bcc2c88b2db228987	d58c7fc8c8888cb2ca2f 97f9c8d98dcd25c7d59b	32	31	34	36	36	29	30	31
8.	cd858cdcdfd85c8bffc7 a28fcd7cc87877ccdcdb	5dcfd2c2fa29277cdc5 d29f5d8d88cc9c988fdc	30	29	31	30	32	27	27	28
9.	f885927f2cc8d9cfffbd c68dcd2f2cd5dbc7bcfc	5ee5927f2cc8d9cfffbd a28dca22dcd5dc5cd2f7	14	22	29	34	33	22	21	20
10.	88f8c7f28a2877dccc9 9a2cdcf753c878fc82c	7d2cf7d7cc7cc92bcc85 2797cd925f8a25c9cd2f	34	26	31	33	34	37	36	35
11.	85d82f57c8537cfc2fffd dc5dcc59cd888d72ccd	2dc7cff5ba2ccd77fc8b 7c5d99dff2b58bbcc88	32	34	39	38	37	30	31	33
12.	dfcdfd87cf2dcc788c78 8dfc8a2cf229cfa225d5	8fcf9a2fcc7fb8cc97d 8cfccfd7cc8dcd8d8d8	28	31	32	34	36	42	46	45
13.	71c85cd7f5c52d753f8d cdc897cd7bc85f9cbfd2	d8d78cfbc8b5df59f22f d7c82d7a288dcfbfc786	31	39	42	46	47	31	32	30
14.	fb2c5c8f8bc0dc0fa28 2b81d8c958c7db728889	85787cd87c8b8f5fb595 87dc079c87cc8ca2ffd5	34	32	34	36	35	30	29	28
15.	10357bdc287ca2fc9dc d5fb7c2c70cf85f87c5bc	a28f7bb8b2bd8c9cfc8 f8c2dfbfc9fc52cbc5a2	29	31	38	38	37	29	26	25
16.	c9c8a29c910236878562 7b8a252cdcf7a28d9df5	5cf05db8b2bd8d8a2bb2 7b8a252cdcf7a28d9df	18	27	31	32	34	25	26	22
17.	dfcc5cf9cf5dbdff758f d27cbcfcd7bccfd5c8c	d88258fcdcd7fbc8d7c5 a28df2fc2c277d57cccf	29	35	36	37	39	30	31	32
18.	8db79c827fccffa289 c7ccc8f2bc28cdc7bf7d	dfcc5cf9cf5dbdff758f d27cbcfcd7bccfd5c8c	31	34	34	38	34	39	41	41
19.	7277fd08cd5f9fc29f5c b8c89a29f8522dcf8d72	dcc8d98cc97288f88dcc 9a2fb7c9975557fdcfdc	32	32	37	39	38	31	30	31
20.	58098d5858cbfbc225d bf8f95c5dc9c8fdcc7c9	8cfd9dcdc5a2cfd2fa2 97cdc65103cd87cfdbcb	33	39	41	42	44	43	46	45