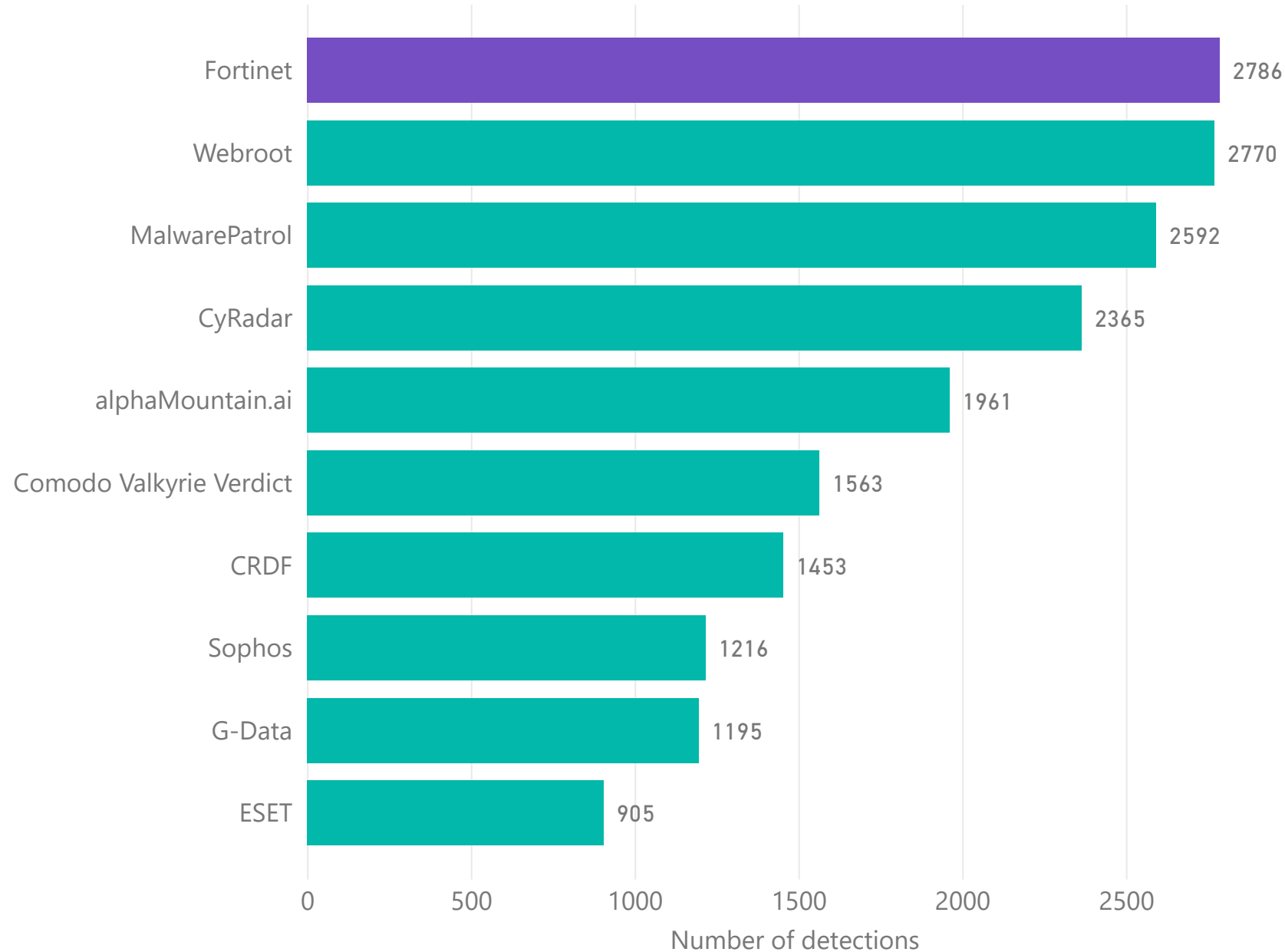


url	fqdn ▲	positives	total	detected_engines	scan_date
http://02.bd-pcgame.720582...	02.bd-pcgame.7...	2	87	{'Webroot': {'detected': True, 'r...	2021-05-07 08:53:49
http://031gmail.com/	031gmail.com	2	87	{'Fortinet': {'detected': True, 'r...	2021-05-07 08:53:46
http://03969e6.netsolhost.co...	03969e6.netsolh...	1	87	{'Dr.Web': {'detected': True, 'r...	2021-05-07 09:05:13
http://1.116.73.156/	1.116.73.156	1	87	{'CRDF': {'detected': True, 'res...	2021-05-07 08:53:42
http://1.116.75.185/	1.116.75.185	2	87	{'Comodo Valkyrie Verdict': {'...	2021-05-07 08:53:42
http://1.14.142.5/	1.14.142.5	2	87	{'CINS Army': {'detected': Tru...	2021-05-07 08:53:38
http://1.15.138.174/	1.15.138.174	4	87	{'Comodo Valkyrie Verdict': {'...	2021-05-07 08:53:40
http://1.15.186.248/	1.15.186.248	1	87	{'CRDF': {'detected': True, 'res...	2021-05-07 08:53:37
http://1.15.251.60/	1.15.251.60	1	87	{'CINS Army': {'detected': Tru...	2021-05-07 08:53:41
http://1.15.47.29/	1.15.47.29	1	87	{'CRDF': {'detected': True, 'res...	2021-05-07 08:53:38

## Top ten engines with most detections



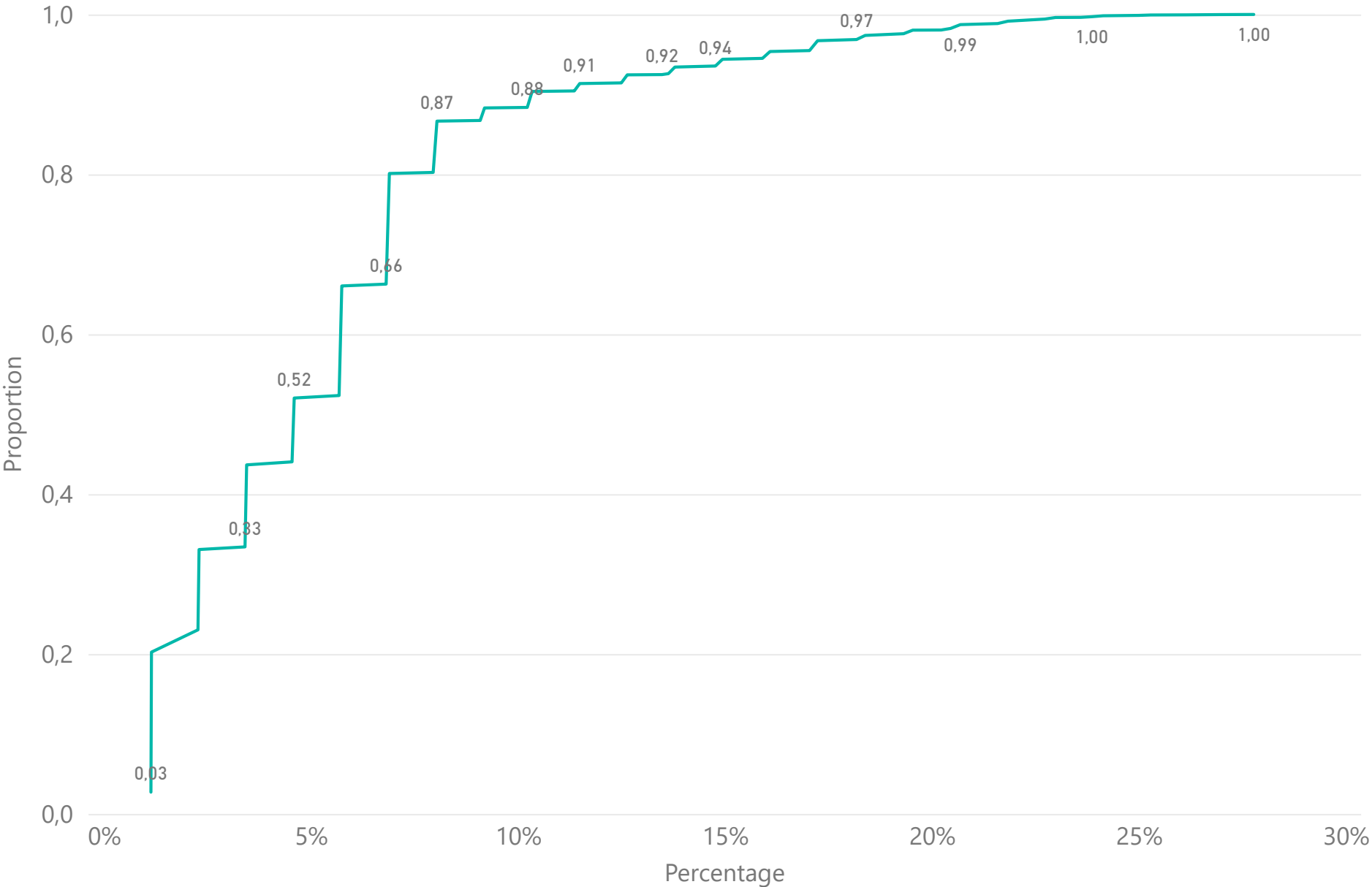
The plot illustrates the top ten numbers of detections by engines. Fortinet and Webroot have the best performances with 2786 and 2770 detected threats respectively, with MalwarePatrol coming in third with 2592 detected potentially hazardous URLs.

## Similarity between engines' detection

Engines	alphaMountain.ai	ComodoValkyrieVerdict	CRDF	CyRadar	ESET	Fortinet	G-Data	MalwarePatrol	Sophos	Webroot
▲										
alphaMountain.ai	100,0%	33,2%	14,6%	44,5%	21,4%	67,8%	32,8%	58,4%	22,4%	67,4%
ComodoValkyrieVerdict	33,2%	100,0%	29,1%	39,8%	21,5%	60,4%	13,3%	29,0%	19,6%	41,0%
CRDF	14,6%	29,1%	100,0%	44,0%	18,8%	54,0%	12,9%	15,2%	15,0%	37,9%
CyRadar	44,5%	39,8%	44,0%	100,0%	28,5%	69,1%	30,1%	55,2%	28,1%	62,5%
ESET	21,4%	21,5%	18,8%	28,5%	100,0%	57,2%	12,3%	9,9%	23,7%	38,5%
Fortinet	67,8%	60,4%	54,0%	69,1%	57,2%	100,0%	64,7%	67,9%	60,0%	62,1%
G-Data	32,8%	13,3%	12,9%	30,1%	12,3%	64,7%	100,0%	40,5%	20,8%	52,5%
MalwarePatrol	58,4%	29,0%	15,2%	55,2%	9,9%	67,9%	40,5%	100,0%	27,5%	58,5%
Sophos	22,4%	19,6%	15,0%	28,1%	23,7%	60,0%	20,8%	27,5%	100,0%	43,0%
Webroot	67,4%	41,0%	37,9%	62,5%	38,5%	62,1%	52,5%	58,5%	43,0%	100,0%

Above heat map shows similarity between each two of top ten engines. Similarity is represented by the ratio of number of URLs that were detected by both of the engines in question and number of URLs that were detected by at least one of the engines. Having similarity score above 50% with every other engine from the top ten, Fortinet engine's similarity is the highest across the whole set of top engines. Webroot and CyRadar come next with slightly weaker scores.

# ECDF of percentages of detected URLs by number of engines



Plot of empirical cumulative distribution function for percentage on X axis shows proportion of all the URLs whose percentages of detected by all engines are less or equal to the percentage in question. From the plot we can see that for all of the URLs less than 30% of the engines detect the threat and for approximately 87% of the URLs only 8% of the engines are able to categorize them as hazardous.