

Feature Name	Feature Description	Justification	Mean	Median	Standard Deviation	Feature Name	Mean (Breached)	Median (Breached)	Standard Deviation (Breached)	Feature Name	Mean (Not Breached)	Median (Not Breached)	Standard Deviation (Not Breached)
employees_number	number of employees	(With more than 1000 employees)	18.451	2.8	67.897	employees	73.282	27.826	98.072	employees	17.515	2.7	66.883
SIC4	The industry	Different industries	4835.509	4923	1896.967	SIC4	5502.377	5912	1543.896	SIC4	4823.832	4922	1900.515
Breach	Whether a breach	This is our first breach	0.019	0	0.138	Breach	1	1	1	Breach	0	0	0
BreachType	What type of breach	Outcome vs n/a	n/a	n/a	n/a	BreachType	n/a	n/a	n/a	BreachType	n/a	n/a	n/a
stockholderAccounting	Accounting Companies	2951.532	486.926	10526.64	stockholder	14345.66	2948.915	28755.34	stockholder	2751.246	474.311	9796.411	
retainedEarnings	Accounting A company	1649.594	152.928	9439.79	retained ea	8620.469	2034.9	20691.83	retained ea	1526.383	147.601	9070.765	
netIncome	Accounting The higher	367.432	40.057	2301.409	netincome	1685.674	468.583	4448.66	netincome	344.245	38.975	2238.767	
cash	Accounting The more cash	670.182	74.242	3340.63	cash	3047.308	732.612	6546.494	cash	628.279	72.32	3240.88	
liabilities	Accounting A company	12040.77	860.159	84672.48	liabilities	93128.47	6239.171	316182.8	liabilities	10611.43	835.345	73647.63	
TOT_C	Total firm's Companies	1.875	2	1.783	TOT_C	3.1625	2	2.725	TOT_C	1.845	2	1.744	
TOT_S	Total firm's Companies	1.566	1	2.594	TOT_S	3.725	2	4.376	TOT_S	1.516	1	2.516	
tobinq	Accounting If a compar	1.589	1.12	2.913	tobinq	1.436	1.072	1.44	tobinq	1.591	1.121	2.933	
newsHits	The number of news hits	603.02	142	2678.146	newsHits	3270.299	663.5	7187.44	newsHits	555.195	140	2499.839	
IsHealthCare	Is company Handles high	0.012	0	0.11	IsHealthCare	0.013	0	0.111	IsHealthCare	0.012	0	0.11	
IsRetail	Is company Deals with	0.002	0	0.044	IsRetail	0.008	0	0.091	IsRetail	0.002	0	0.043	
IsIT	Is company IT industry	0	0	0	IsIT	0	0	0	IsIT	0	0	0	
IsCommunity	Is company Handles se	0.025	0	0.155	IsCommunity	0.05	0	0.218	IsCommunity	0.024	0	0.153	
IsFinancial	Is company Due to the	0.228	0	0.419	IsFinancial	0.246	0	0.431	IsFinancial	0.227	0	0.419	
IsEntertainment	Is company Companies	0.008	0	0.09	IsEntertainment	0	0	0	IsEntertainment	0.008	0	0.091	
ROE	Return on EA lower RC	-0.013	0.102	4.388	ROE	0.154	0.144	1.632	ROE	-0.016	0.101	4.421	
NetIncome	Ratio of co Higher val	0.027	0.063	1.598	NetIncome	0.131	0.074	0.26	NetIncome	0.026	0.062	1.612	
TOT_CtoT	(Ratio of co A higher rat	1.113	1	1.117	TOT_CtoT	1.256	1	1.273	TOT_CtoT	1.109	1	1.112	
IsGovernment	Is company Goverment	0	0	0	IsGovernment	0	0	0	IsGovernment	0	0	0	
IsEducation	Is company Educationa	0.004	0	0.06	IsEducation	0	0	0	IsEducation	0.004	0	0.06	
IsManufacturing	Is company Breach atta	0.36	0	0.48	IsManufacturing	0.192	0	0.394	IsManufacturing	0.363	0	0.481	
BreachOcc	Rate of bre Companies	0.019	0	0.068	BreachOcc	0.267	0.167	0.168	BreachOcc	0.014	0	0.054	
TotalAssets	Company's Larger assets	14544.97	1389.665	91124.32	TotalAssets	93144.24	7529.198	318160.6	TotalAssets	12991.63	1349.893	79692.52	
ROA	Total return Low ROA c	0.001	0.037	0.906	ROA	0.047	0.047	0.095	ROA	9.80E-05	0.036	0.914	
AssetTurnover	Company's A high ass	0.001	0.037	0.906	AssetTurnover	0.047	0.047	0.095	AssetTurnover	9.80E-05	0.036	0.914	
EmployeeTurnover	Employee i A lack of in	0.216	0.075	1.113	EmployeeTurnover	0.137	0.077	0.245	EmployeeTurnover	0.218	0.075	1.122	
CapExToTotal	How much Lower invest	0.033	0.014	0.057	CapExToTotal	0.243	0.119	0.437	CapExToTotal	0.033	0.014	0.057	
CashToLiquidity	Cash to liq Lower ratio	0.433	0.105	1.485	CashToLiquidity	0.243	0.119	0.437	CashToLiquidity	0.436	0.105	1.497	
CashFlowConversion	Lower ratio	1.912	0.544	89.655	CashFlowConversion	2.801	0.657	20.67	CashFlowConversion	1.896	0.541	90.4	
StockholderRatio	Ratio of co Lower ratio	1.888	0.765	13.611	StockholderRatio	0.956	0.609	1.476	StockholderRatio	1.905	0.771	13.729	
BreachingCost	Breach to C High ratio i	0.003	0	0.062	BreachingCost	0.022	0.002	0.058	BreachingCost	0.003	0	0.062	
BreachingTotal	Breach to I High ratio ii	0.021	0	0.126	BreachingTotal	0.274	0.161	0.372	BreachingTotal	0.017	0	0.111	
tobinqToEnterprise	IT spending Lower ratio	19.351	0.323	454.376	tobinqToEnterprise	0.193	0.033	0.556	tobinqToEnterprise	19.68	0.333	458.263	
EmployeeGrowth	Employee g A high gro	4.687	-0.043	211.26	EmployeeGrowth	-0.238	-0.041	0.581	EmployeeGrowth	4.781	-0.043	213.27	
NewsHitsIncrease	News hit ra An increase	1.857	0	33.121	NewsHitsIncrease	0.278	0	2.22	NewsHitsIncrease	1.89	0	33.458	
CapExToTotal	CapEx to T Reveals ho	315.582	7.569	2612.75	CapExToTotal	2201.146	51.563	14461.15	CapExToTotal	282.53	7.378	1798.518	

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Clients Total numb More clients may increase the interaction points of an attack, through client related vulnerabilities

Contractors Total numb With contractors often having acess to company systems, there may be a risk if they're not properly trained

GlobalPres Total of int By operating in different regions, there may be different security measures, regulations, and an increase in potential attackers

SecurityBu\Annual bud Size of a company's security budget may indicate how robust and effiective their cybersecurity measures are. Often, a higher security budget indicates more resources and stronger cybersecurity practies within the company as it's invested in training, incident response, etc.

SecuritySc\Organizati A company's overall risk and cybcersecurity posture score may indiciate its strengths and weaknesses, a lower score making it more vulnerable to attacks

SecurityTra\Frequency Higher frequency of training can reduce human error, which often leads to the cause of the breach

EmployeeS\Percentage of employees who completed security training

ThirdParty\Total number of third party vendors

ThirdParty\R Risk level of third party vendors

Cybersecur\Maturity number of overall cyber practices

MFAUsage\Total of employee accounts using Multi-Factor Authentication

ITStaff\Total of IT Staff, ratio to total employees

IncidentRe\Time taken to response to security indicents

PhishingTe\Percentage of postive employee preformance during phishing testing

PatchFreq\ Frequency at which security patches are applied to system(s)

DataSense\Sensetivity score for type of data the company handles

Cybersecur\Percentage of systems or applicatoins within the company that are protected by security application or infrastructure

MarketShai\Percentage of markeshare within industry