Problem Setup

Low-dose radiation dataset GSE6978 of size (114, 10046)

*	X79098 [‡]	X23731 ÷	X9025 [‡]	X9718 ÷	X79665 ÷	X960 =	X401577 ÷	X51690 ÷	X989 ÷	X9435 [‡]	X5905 ÷	X64983
1	0.4477194304	1.289299071	-1.102321628	-1.373320946	1.549177877	-0.60250687	-2.554907304	-1.21735890	2.88824217	0.657375430	0.47840121	-0.58643734
2	0.9068455129	1.754209118	-0.115281563	-0.675571092	-0.221942480	0.14845206	-1.222775474	-0.47368298	0.09899395	-0.092673166	2.76143805	-0.25380523
3	-0.0007477902	1.071579879	-0.646279339	-0.439117698	-0.937881292	0.97249672	1.124877737	0.23837552	-0.08983793	-0.364961484	-1.11213920	0.40207767
4	0.5804336407	-0.265977263	1.196173226	0.455464015	-1.460103059	-0.57128711	-0.768497487	-0.04556670	-0.30799103	-1.026777972	0.07032624	-0.32591289
5	-0.9585798235	1.202434069	-0.931450407	-0.117246159	-0.472535351	2.18592525	-0.397957084	-0.17775879	-0.34864597	-0.593217661	-0.82304722	1.29295470
6	-0.5146972688	-0.228884599	-1.170371918	0.127176228	0.684441424	0.56615565	-1.632830388	2.65240886	-0.66970199	-0.405055277	0.34881103	0.48667135
7	-0.7815676236	-0.410648360	-0.878194910	0.137604360	-1.037243315	1.88213615	0.041800287	0.21355652	-0.31817007	-0.415393289	0.08397482	1.26598140
8	-0.1972739227	-1.241201538	-0.532180837	0.122115836	0.277456590	-0.03068150	1.131404730	-0.18034763	0.26941030	-0.053950991	1.14438892	-2.38326779
9	-1.7742223668	-1.578648404	-1.286997484	0.765659068	1.445804396	1.09203962	-0.383241273	1.47365359	0.01149043	-0.748975835	-0.90168305	0.25097051
10	-1.0933573288	1.018880177	-0.070982960	-0.435205105	0.601491082	0.97048845	-1.926177556	-1.14990968	0.71498764	-0.282026025	-0.22929820	0.40865915
11	0.0548453368	0.375050930	-1.162767279	0.014222274	1.862430171	-0.75343179	-0.923185423	-1.43944849	2.58440675	2.863636008	0.21274306	-0.05951651
12	-1.6938902009	-0.696364139	-1.229447468	0.272479900	1.002437435	0.99184972	-1.180497801	1.37351662	-0.08629211	-0.221008615	-2.11800062	1.20410463
13	-0.3235484753	0.700540357	-1.408119056	1.404106798	0.458556109	-0.54444200	-1.533882247	-1.49728131	2.17270653	2.797760097	1.09980123	-0.20615689
14	0.6151098741	0.692989349	0.403978739	-1.058675341	0.703627981	-1.62521844	-0.623821930	-1.92544401	1.54207688	1.867962226	0.37462586	-1.26128627
15	0.9522808208	-1.204252806	1.296444896	-0.955233785	-0.254673550	-2.03927031	-0.065979119	-1.64957323	0.60697312	1.475612965	-0.13252100	-1.39265844
16	0.2613651548	-0.321909999	1.156105547	-0.949188627	-0.845315266	-0.86532920	-0.625067313	-1.59773386	-0.43634994	-1.077681764	1.52133494	-1.42449058
Show	ng 1 to 17 of 114	entries, 10046 to	otal columns	1 742071600	0.202007644	0 21107205	0.410001150	0 5 4 7 7 4 0 0 0	0.37054501	0.710405513	0.00470500	0.35033635

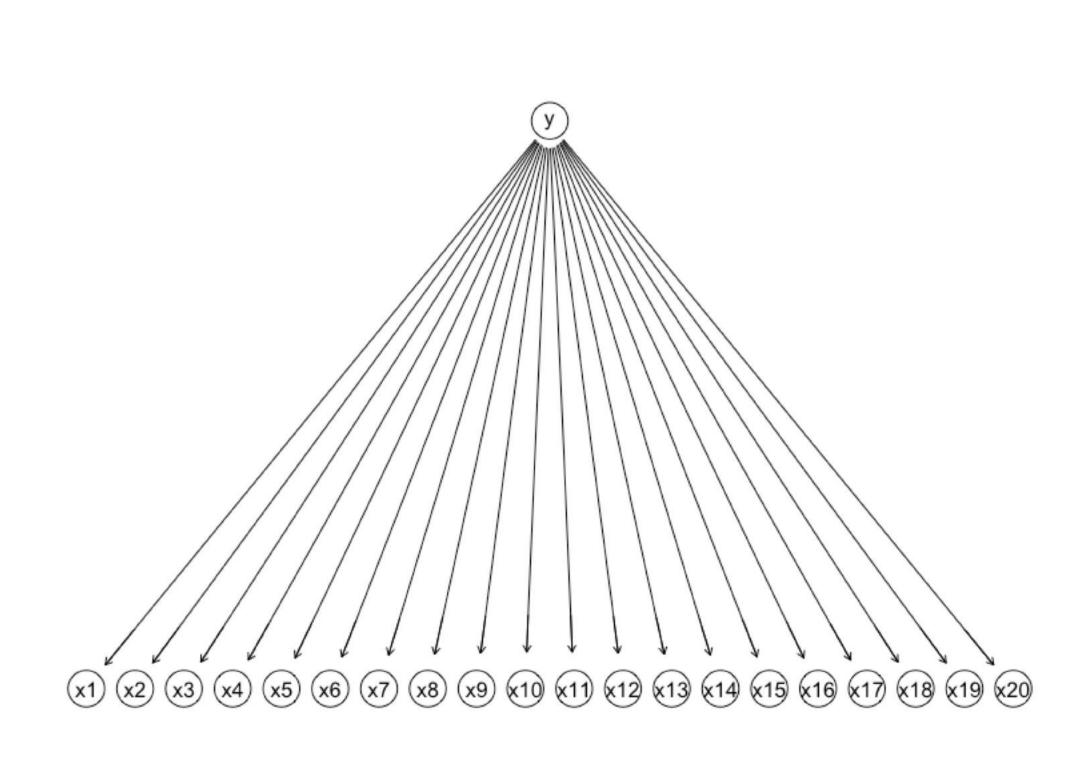
Classification problem: $R^10046 \rightarrow R^2$

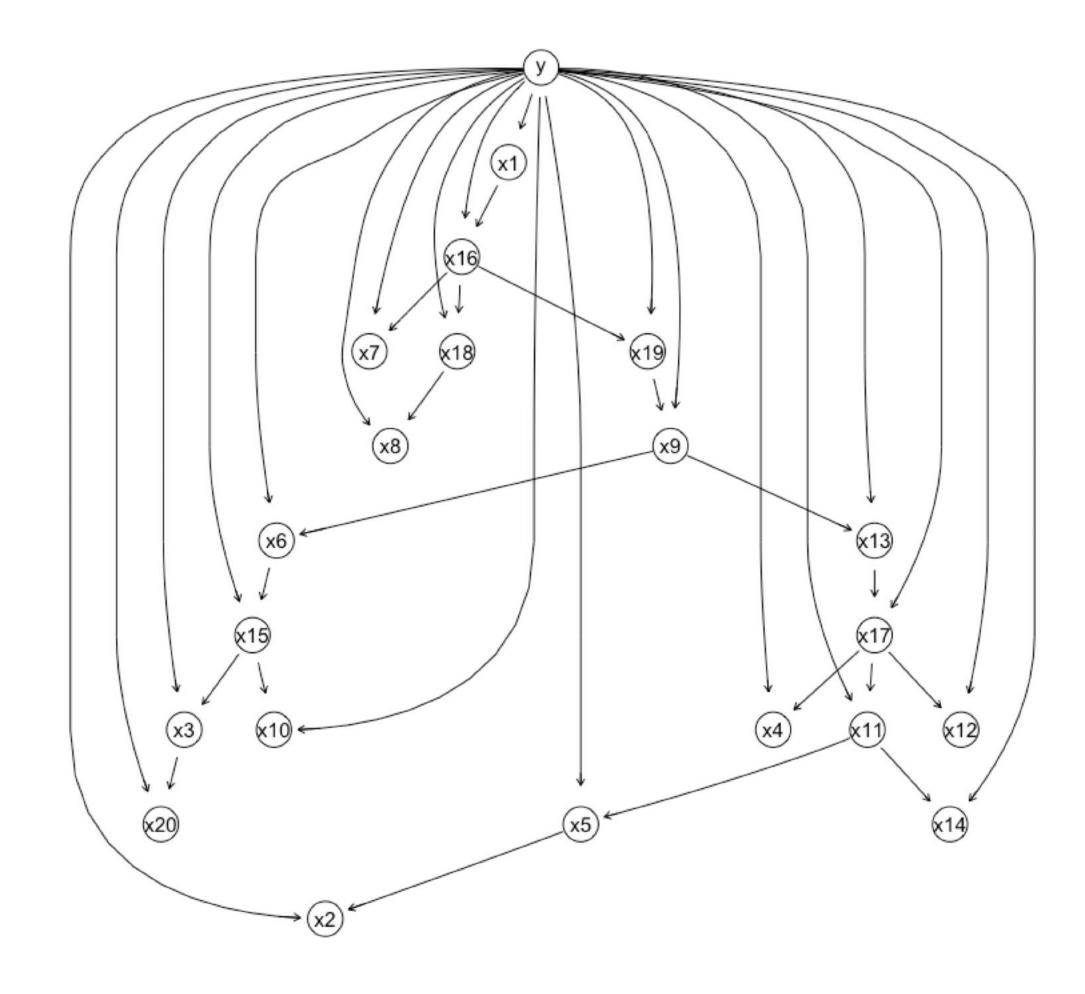
Results --- Bayesian classifier with 20 features

Model: naive Bayes

Accuracy: 0.66667

Model: Tree-Augmented naive Bayes Accuracy: 0.666667





Results --- Bayesian classifier with 13 features

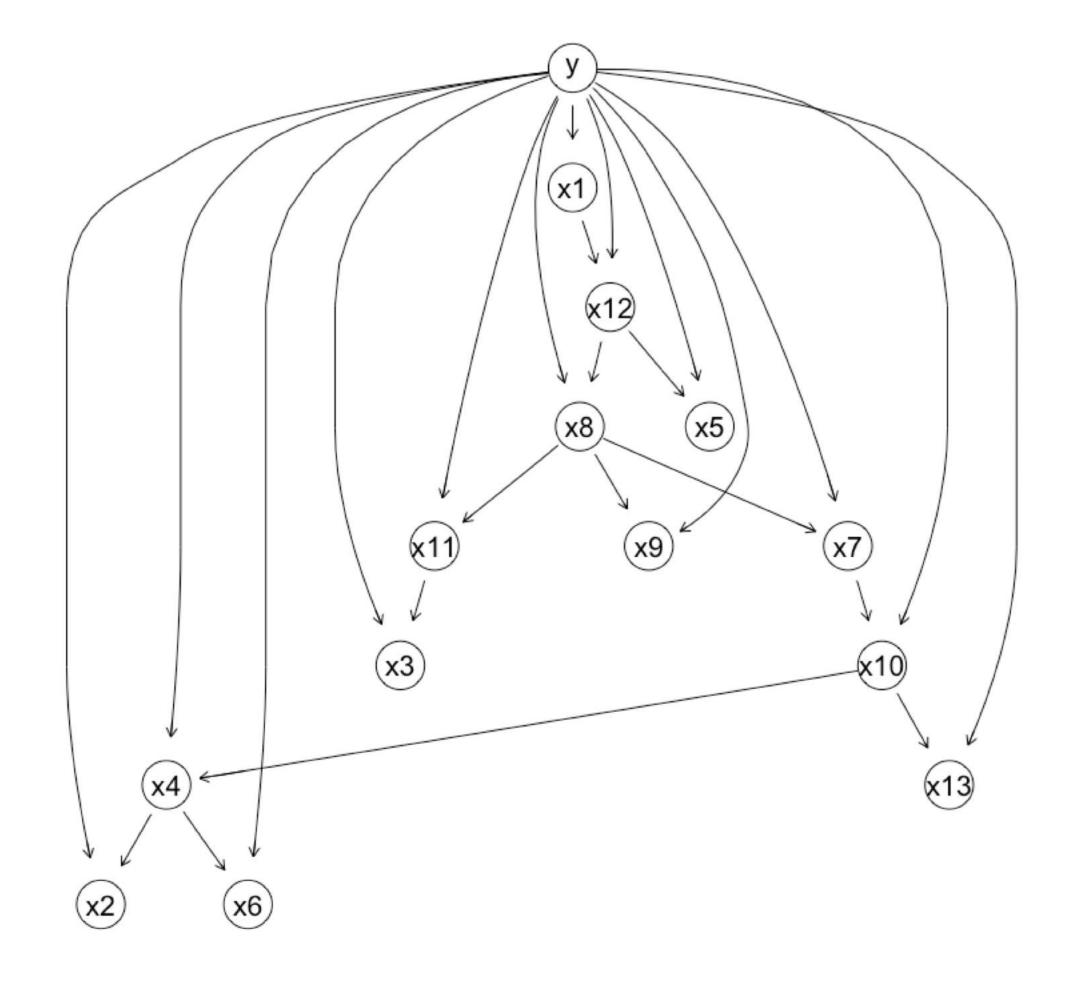
Model: naive Bayes

Accuracy: 0.6

x1 x2 x3 x4 x5 x6 x7 x8 x9 x10 x11 x12 x13

Model: Tree-Augmented naive Bayes

Accuracy: 0.66667



Results --- Bayesian classifier with 17 features

Model: naive Bayes

Accuracy: 0.66667

x1 x2 x3 x4 x5 x6 x7 x8 x9 x10 x11 x12 x13 x14 x15 x16 x17

Model: Tree-Augmented naive Bayes

Accuracy: 0.6

