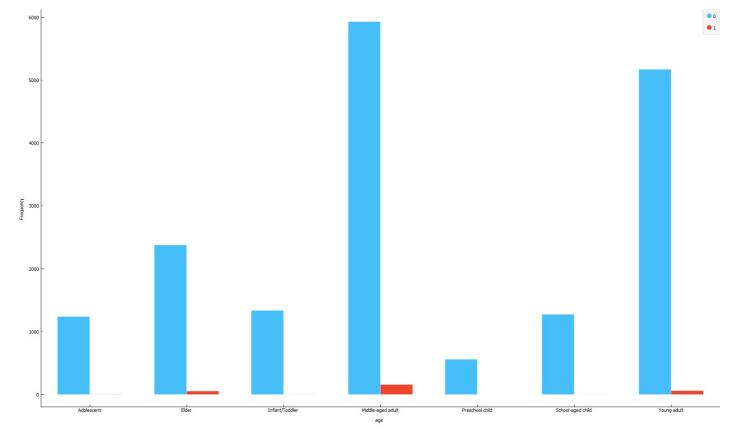
Distributions Tue Jun 19 18, 20:45:27



Distribution of 'age' grouped by 'class'

## Settings

Sampling type: No sampling, test on testing data Target class: Average over classes

## Scores

Method	AUC	CA	F1	Precision	Recall
Tree	0.500	0.984	0.977	0.969	0.984
Random Forest	0.683	0.984	0.977	0.969	0.984
CN2 rule inducer	0.661	0.980	0.977	0.975	0.980
Naive Bayes	0.702	0.971	0.970	0.970	0.971

Tue Jun 19 18, 20:47:14 Tree Viewer

Tree size: 1 nodes, 1 leaves Edge widths: Fixed Target class: None



**CN2** Rule Viewer Tue Jun 19 18, 20:47:21

## Data domain

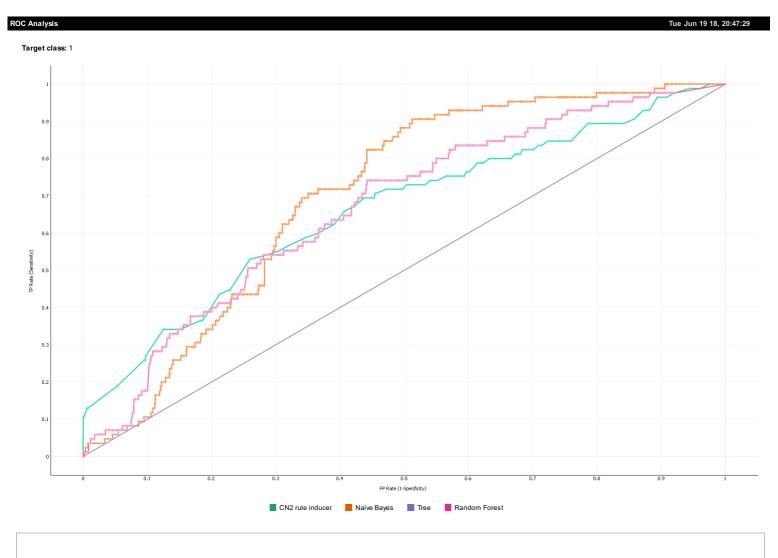
Features: A00-A09, A15-A19, A20-A28, A30-A49, A50-A64, A65-A69, A70-A74, A75-A79, A80-A89, A90-A99, B00-B09, B15-B19, B20-B20, B25-B34, B35-B49, B65-B83, B85-B89, B90-B94, B95-B97, C00-C14, C15-C26, C30-C39, C40-C41, C43-C44, C45-C49, C50-C50, C51-C58, C60-C63, C64-C68, C69-C72, C73-C75, C76-C80, C81-C96, D00-D09, D10-D36, D37-D48, D50-D53, D55-D59, D60-D64, D65-D69, D70-D77, D80-D89, E00-E07, E08-E13, E14-E14, E15-E16, E20-E35, E40-E46, E55-E64, E65-E68, E70-E88, E89-E89, F01-F09, F10-F19, F20-F29, F30-F39, F40-F48, F50-F59, F50-F69, F70-F79, F80-F59, F90-F98, G00-G09, G10-G14, G20-G26, G30-G32, G35-G37, G40-G47, G50-G59, G60-G65, G70-G73, G80-G83, G89-G99, H00-H05, H10-H11, H15-H22, H25-H28, H30-H36, H40-H42, H43-H44, H46-H47, H49-H5, H35-H57, H60-H62, H65-H75, H80-H83, H90-H94, H95-H95, 100-102, 105-109, 110-116, 120-125, 126-128, 130-H52, 160-169, 170-179, 180-189, 195-199, J00-J06, J09-J18, J20-J22, J30-J39, J40-J47, J60-J70, J80-J84, J85-J86, J90-J94, J95-J95, J96-J99, ... (total: 243 features) Target: class

Rule ordering: ordered Covering algorithm: exclusive Gamma: 0.7 Evaluation measure: entropy Beam width: 5 Minimum rule coverage: 2 Maximum rule length: 5 Default alpha: 1.0 Parent alpha: 1.0

## Induced rules

	IF conditions		THEN class	Distribution	Probabilities [%]	Quality	Length
445	R50-R69≠0 AND D37-D48≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
528	C64-C68≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
537	age≠Elder AND D65-D69≠0	$\rightarrow$	class=1	[0, 4]	17 : 83	-0.00	2
591	K20-K31=0 AND L55-L59≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
592 650	H49-H52≠0 AND E65-E68≠0	$\rightarrow$	class=1	[0, 2]	25 : 75 25 : 75	-0.00 -0.00	2
690	age=Young adult AND K00-K14≠0 AND K40-K46≠0 K20-K31=0 AND M15-M19≠0 AND J20-J22≠0	$\rightarrow$	class=1 class=1	[0, 2] [0, 2]	25 : 75 25 : 75	-0.00	3
728	N20-N23=0 AND age=Middle-aged adult AND B15-B19≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
744	N20-N23=0 AND age=Middle-aged adult AND L20-L30≠0	→	class=1	[0, 2]	25 : 75	-0.00	3
751	K20-K31=0 AND K50-K52≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
756	J40-J47=0 AND S20-S29≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
820	H80-H83≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
844	R10-R19=0 AND Z00-Z13≠0 AND K55-K64≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
868	J40-J47=0 AND H60-H62≠0 AND J09-J18≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
915	R10-R19=0 AND Z00-Z13≠0 AND N20-N23=0 AND I30-I52≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
919	H49-H52=0 AND I20-I25#0 AND G50-G59#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
921	N20-N23=0 AND Z77-Z99≠0	$\rightarrow$	class=1	[0, 4]	17 : 83	-0.00	2
923 926	I20-I25±0 AND D10-D36±0 I20-I25±0 AND E08-E13±0	$\rightarrow$	class=1 class=1	[0, 2]	25 : 75 25 : 75	-0.00 -0.00	2
940	R40-R46≠0	$\rightarrow$	class=1	[0, 2] [0, 2]	25 : 75 25 : 75	-0.00	1
946	I10-I16≠0 AND A00-A09≠0	<i>,</i>	class=1	[0, 3]	20 : 80	-0.00	2
948	110-116≠0 AND J96-J99≠0	→	class=1	[0, 2]	25 : 75	-0.00	2
962	K20-K31=0 AND R50-R69≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
973	Z00-Z13≠0 AND H60-H62≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
974	Z00-Z13≠0 AND K40-K46≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1010	K00-K14≠0	$\rightarrow$	class=1	[0, 4]	17 : 83	-0.00	1
1014	I10-I16≠0 AND F40-F48≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1019	I10-I16≠0 AND J00-J06≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1035	S00-S09≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	1
1050	M45-M49≠0 AND I30-I52≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1055	I10-I16≠0 AND L49-L54≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1062	120-125≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
1070	110-I16≠0 AND H10-H11≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1074 1081	H10-H11≠0 I10-I16≠0 AND age=Elder		class=1	[0, 2]	25 : 75 25 : 75	-0.00 -0.00	1 2
1090	age=Young adult AND H49-H52≠0	$\rightarrow$	class=1 class=1	[0, 2] [0, 2]	25 : 75 25 : 75	-0.00	2
1090	age= roung addit AND 1143-1132≠0 H49-H52≠0 AND M70-M79≠0	$\rightarrow$	class=1	[0, 2]	25 : 75 25 : 75	-0.00	2
1100	R00-R09#0 AND N70-N77#0	→	class=1	[0, 2]	25 : 75	-0.00	2
1115	110-116≠0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	1
1116	M80-M85≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
1124	S90-S99≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	1
1129	H25-H28≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
1137	D10-D36≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
1140	E70-E88≠0 AND K20-K31≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1143	E70-E88≠0 AND age≠Middle-aged adult	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1156	H90-H94≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	1
1160 1162	l30-l52≠0 L60-L75≠0	$\rightarrow$	class=1 class=1	[0, 2]	25 : 75 25 : 75	-0.00 -0.00	1 1
1164	E08-E13≠0 AND F30-F39≠0	<i>→</i>	class=1	[0, 2] [0, 2]	25 : 75 25 : 75	-0.00	2
1174	J00-J06≠0	→	class=1	[0, 2]	25 : 75	-0.00	1
1181	age=Young adult AND J30-J39≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1184	age=Young adult AND R10-R19≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1185	age=Young adult AND O80-O82=0 AND Z00-Z13≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
1187	age=Young adult AND A65-A69=0 AND E00-E07=0 AND N70-N77=0 AND V00-V09=0	$\rightarrow$	class=1	[0, 15]	6:94	-0.00	5
1189	E08-E13≠0 AND age≠Elder	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1196	M15-M19≠0 AND G50-G59=0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
1199	R10-R19≠0 AND age≠Middle-aged adult		class=1	[0, 2]	25 : 75	-0.00	2
1201	age=Middle-aged adult AND M50-M54≠0		class=1	[0, 2]	25 : 75	-0.00	2
1204 1206	age=Middle-aged adult AND N40-N53=0 AND G50-G59=0 AND H30-H36=0 AND H49-H52=0 age=Elder AND K20-K31=0 AND M40-M43=0 AND M60-M63=0	<b>→</b>	class=1 class=1	[1, 20]	9:91	-0.276 -0.00	5 4
1210	age-Elder AND K20-K31-0 AND IN40-IN43-0 AND IN00-IN03-0 H49-H52=0		class=1	[0, 5] [1, 2]	14 : 86 40 : 60	-0.918	1
1211	TRUE		class=1	[1, 1]	50 : 50	-1.000	
	A15-A19≠0	$\rightarrow$	class=0	[14, 0]	94 : 6	-0.00	1
1	A20-A28≠0	$\rightarrow$	class=0	[9, 0]	91 : 9	-0.00	1
2	A30-A49≠0	$\rightarrow$	class=0	[37, 0]	97 : 3	-0.00	1
3	A50-A64≠0	$\rightarrow$	class=0	[42, 0]	98 : 2	-0.00	1
4	A70-A74≠0	$\rightarrow$	class=0	[2, 0]	75 : 25	-0.00	1
5	B85-B89≠0	$\rightarrow$	class=0	[61, 0]	98 : 2	-0.00	1
6	B95-B97≠0	$\rightarrow$	class=0	[50, 0]	98 : 2	-0.00	1
7	C00-C14≠0	$\rightarrow$	class=0	[18, 0]	95 : 5	-0.00	1
8	C30-C39≠0	$\rightarrow$	class=0	[51, 0]	98:2	-0.00	1
9	C40-C41#0	<b>→</b>	class=0	[4, 0]	83 : 17	-0.00	1
10 11	C43-C44≠0 C45-C49≠0	$\rightarrow$	class=0	[73, 0]	99 : 1 91 : 9	-0.00 -0.00	1 1
12	C45-C49≠0 C50-C50≠0	$\rightarrow$	class=0 class=0	[9, 0] [71, 0]	91 : 9 99 : 1	-0.00	1
13	C69-C72≠0	<i>→</i>	class=0	[11, 0]	92 : 8	-0.00	1
14	C73-C75≠0		class=0	[7, 0]	89 : 11	-0.00	1
	010 010/0			[., 0]		5.55	

15	C76-C8	0≠0 —	<b>→</b>	class=0	[18, 0]	95 : 5	-0.00	1
16	D00-D0	9 <b>≠</b> 0 —	<b>→</b>	class=0	[10, 0]	92 : 8	-0.00	1
17	D55-D5	9≠0 —	<b>→</b>	class=0	[8, 0]	90 : 10	-0.00	1
18	D80-D8	9≠0 —	<b>→</b>	class=0	[6, 0]	88 : 12	-0.00	1
19	E40-E4	6≠0 —	<b>→</b>	class=0	[6, 0]	88 : 12	-0.00	1
20	E50-E6	4≠0 —	<b>→</b>	class=0	[44, 0]	98 : 2	-0.00	1
21	E89-E8	9≠0 —	<b>→</b>	class=0	[7, 0]	89 : 11	-0.00	1
22	F01-F0	9≠0 —	<b>→</b>	class=0	[224, 0]	100 : 0	-0.00	1
23	F20-F2	9≠0 —	<b>→</b>	class=0	[107, 0]	99 : 1	-0.00	1
24	F50-F5	9≠0 —	<b>→</b>	class=0	[15, 0]	94 : 6	-0.00	1
25	F60-F6	9≠0 —	<b>→</b>	class=0	[7, 0]	89 : 11	-0.00	1
26	F70-F7	9≠0 —	<b>→</b>	class=0	[25, 0]	96 : 4	-0.00	1
27	F80-F8	9≠0 —	<b>→</b>	class=0	[64, 0]	98 : 2	-0.00	1
28	F90-F9	8≠0 —	<b>→</b>	class=0	[41, 0]	98 : 2	-0.00	1
29	G10-G1	4≠0 —	<b>→</b>	class=0	[2, 0]	75 : 25	-0.00	1
30	G20-G2	6≠0 —	<b>→</b>	class=0	[65, 0]	99 : 1	-0.00	1
31	G30-G3	2≠0 —	<b>→</b>	class=0	[15, 0]	94 : 6	-0.00	1
32	G35-G3	7≠0 —	<b>→</b>	class=0	[15, 0]	94 : 6	-0.00	1
33	G70-G7	3≠0 —	<b>→</b>	class=0	[6, 0]	88 : 12	-0.00	1
34	G89-G9	9≠0 —	<b>→</b>	class=0	[19, 0]	95 : 5	-0.00	1
35	H00-H0	5≠0 —	<b>→</b>	class=0	[228, 0]	100 : 0	-0.00	1
36	H46-H4	7≠0 —	<b>→</b>	class=0	[14, 0]	94 : 6	-0.00	1
37	H55-H5	7≠0 —	<b>→</b>	class=0	[10, 0]	92 : 8	-0.00	1
	+ 1112 more							



Calibration Plot



