

Distribution of 'age' grouped by 'class'

Tue Jun 19 18, 01:06:20

## Settings

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

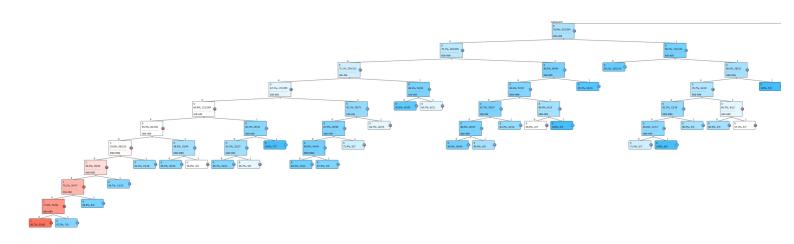
AUC CA F1 Precision Recall

## Scores Method

Random Forest	0.638	0.892	0.863	0.891	0.892
Tree	0.648	0.888	0.859	0.879	0.888
CN2 rule inducer	0.654	0.871	0.849	0.846	0.871
Naive Bayes	0.665	0.864	0.807	0.809	0.864

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Tree size: 544 nodes, 275 leaves Edge widths: Fixed Target class: None



CN2 Rule Viewer Tue Jun 19 18, 01:08:40

Data domain

Features: C00-D49, D50-D89, E00-E89, F01-F99, G00-G99, H00-H59, H60-H95, I00-I99, J00-J99, K00-K95, L00-L99, M00-M99, N00-N99, O00-O9A, P00-P96, Q00-Q99, R00-R99, S00-T88, V00-Y99, Z00-Z99, age (total: 21 features) Target: class

## Rule induction algorithm

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
56	S00-T88#0 AND age=Middle-aged adult AND H00-H59#0 AND V00-Y99#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
66	S00-T88≠0 AND age=Middle-aged adult AND V00-Y99≠0	$\rightarrow$	class=1	[0, 4]	17:83	-0.00	3
83	S00-T88#0 AND R00-R99=0 AND I00-I99#0 AND O00-O9A#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
117	O00-O9A≠0 AND H60-H95=0 AND S00-T88≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
136	100-l99≠0 AND H00-H59≠0 AND V00-Y99≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	3
253	K00-K95≠0 AND age=Young adult AND S00-T88=0 AND L00-L99≠0 AND O00-O9A≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	5
258	100-l99≠0 AND L00-L99=0 AND M00-M99=0 AND age=Elder AND D50-D89≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	5
291	K00-K95≠0 AND L00-L99=0 AND M00-M99=0 AND H00-H59≠0 AND D50-D89≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	5
310	age=Middle-aged adult AND S00-T88#0 AND N00-N99=0 AND D50-D89#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
332	H00-H59≠0 AND M00-M99=0 AND age=Middle-aged adult AND C00-D49≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
382	I00-I99≠0 AND age=Adolescent	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
385	R00-R99#0 AND age=Adolescent AND H00-H59=0 AND E00-E89#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
394	C00-D49≠0 AND Q00-Q99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
395	C00-D49≠0 AND V00-Y99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
398	C00-D49≠0 AND L00-L99=0 AND G00-G99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
419	age=Elder AND I00-I99=0 AND S00-T88≠0 AND E00-E89≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
427	100-199≠0 AND D50-D89≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	2
431	K00-K95≠0 AND age=School-aged child AND L00-L99=0 AND N00-N99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
436	K00-K95≠0 AND age=School-aged child AND M00-M99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
441	H60-H95≠0 AND age=Young adult AND D50-D89≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
455	H00-H59≠0 AND age=Young adult AND I00-I99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
460	H00-H59≠0 AND age=Young adult AND J00-J99=0 AND K00-K95≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
463	K00-K95≠0 AND age=Young adult AND H00-H59≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	3
496	C00-D49#0 AND L00-L99=0 AND S00-T88#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
502	S00-T88≠0 AND age=Middle-aged adult AND C00-D49≠0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	3
503	S00-T88#0 AND age=Middle-aged adult AND H60-H95=0 AND H00-H59#0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	4
505	S00-T88≠0 AND age=Middle-aged adult AND F01-F99=0 AND I00-I99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
542	H60-H95≠0 AND V00-Y99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
560	E00-E89#0 AND J00-J99=0 AND D50-D89#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
564	F01-F99#0 AND J00-J99=0 AND G00-G99#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
581	Z00-Z99#0 AND age=Adolescent AND H60-H95#0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	3
588	age=Elder AND S00-T88≠0 AND C00-D49≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
597	Z00-Z99≠0 AND R00-R99=0 AND V00-Y99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
599	R00-R99≠0 AND V00-Y99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
608	K00-K95≠0 AND D50-D89≠0 AND C00-D49≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
610	K00-K95≠0 AND age=Young adult AND J00-J99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3

626	M00-M99≠0 AND age=Young adult AND H00-H59≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
629	L00-L99≠0 AND P00-P96≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	2
631	L00-L99#0 AND age=Adolescent AND C00-D49#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
638 645	L00-L99≠0 AND age=Infant/Toddler AND H00-H59≠0 H00-H59≠0 AND Q00-Q99≠0 AND R00-R99≠0	$\rightarrow$	class=1	[0, 2] [0, 4]	25 : 75	-0.00 -0.00	3
656	L00-L99#0 AND D50-D89#0 AND H60-H95#0	<i>→</i>	class=1 class=1	[0, 4]	17 : 83 25 : 75	-0.00	3
659	J00-J99#0 AND P00-P96#0 AND Q00-Q99=0	<b>→</b>	class=1	[0, 3]	20 : 80	-0.00	3
661	V00-Y99≠0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	1
667	L00-L99#0 AND age=Young adult AND N00-N99=0 AND C00-D49#0 AND H00-H59=0	$\rightarrow$	class=1	[0, 4]	17:83	-0.00	5
670	L00-L99#0 AND age=Young adult AND N00-N99=0 AND F01-F99#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
679	Z00-Z99≠0 AND age=Middle-aged adult AND H00-H59=0 AND L00-L99≠0	$\rightarrow$	class=1	[0, 4]	17 : 83	-0.00	4
692	age=Elder AND H60-H95≠0 AND N00-N99=0 AND R00-R99≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	4
704	H00-H59≠0 AND age=School-aged child AND F01-F99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
707	H00-H59≠0 AND age=School-aged child AND Z00-Z99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
711	R00-R99#0 AND age=Preschool child AND G00-G99#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
714 717	R00-R99#0 AND age=Preschool child AND M00-M99#0	$\rightarrow$	class=1 class=1	[0, 2]	25 : 75 20 : 80	-0.00	3 4
719	H60-H95≠0 AND C00-D49≠0 AND H00-H59=0 AND E00-E89≠0 age=Elder AND H60-H95≠0 AND H00-H59=0 AND F01-F99≠0	<i>→</i>	class=1	[0, 3] [0, 2]	25 : 75	-0.00 -0.00	4
723	G00-G99#0 AND Z00-Z99#0 AND S00-T88=0	<i>→</i>	class=1	[0, 2]	25 : 75	-0.00	3
726	Z00-Z99≠0 AND D50-D89≠0 AND Q00-Q99=0	→	class=1	[0, 3]	20 : 80	-0.00	3
730	R00-R99≠0 AND J00-J99=0 AND C00-D49≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
732	R00-R99#0 AND J00-J99=0 AND age=School-aged child AND I00-I99#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
735	R00-R99≠0 AND age=Adolescent AND H60-H95≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
742	N00-N99≠0 AND J00-J99=0 AND F01-F99≠0 AND L00-L99=0	$\rightarrow$	class=1	[0, 5]	14 : 86	-0.00	4
747	R00-R99≠0 AND J00-J99=0 AND G00-G99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
751	K00-K95≠0 AND Q00-Q99≠0 AND L00-L99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
754	Z00-Z99≠0 AND age=Young adult AND M00-M99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
756	Z00-Z99≠0 AND age=Young adult AND F01-F99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
762	Z00-Z99#0 AND C00-D49#0 AND H00-H59#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
763	J00-J99#0 AND N00-N99=0 AND age=Elder AND L00-L99=0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
768	age=Young adult AND N00-N99=0 AND J00-J99=0 AND E00-E89=0 AND D50-D89=0	$\rightarrow$	class=1	[5, 147]	4:96	-0.209	5 4
769 774	age=Young adult AND S00-T88=0 AND I00-I99≠0 AND H60-H95=0 F01-F99≠0 AND I00-I99=0 AND H00-H59≠0	→	class=1 class=1	[0, 3] [0, 3]	20 : 80 20 : 80	-0.00 -0.00	3
781	R00-R99#0 AND C00-D49#0 AND N00-N99#0	<i>→</i>	class=1	[0, 3]	25 : 75	-0.00	3
787	H00-H59≠0 AND age=Adolescent AND Z00-Z99≠0	<i>→</i>	class=1	[0, 2]	25 : 75	-0.00	3
791	Z00-Z99≠0 AND age=Young adult AND S00-T88≠0 AND I00-I99=0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	4
793	Z00-Z99≠0 AND M00-M99=0 AND F01-F99≠0 AND H60-H95=0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	4
795	Z00-Z99≠0 AND age=School-aged child AND H60-H95≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
796	Z00-Z99≠0 AND age=School-aged child AND J00-J99=0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
805	S00-T88#0 AND E00-E89#0 AND H60-H95#0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
806	S00-T88≠0 AND G00-G99≠0 AND H00-H59=0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
807	S00-T88≠0 AND age=Preschool child AND H00-H59≠0	$\rightarrow$	class=1	[0, 4]	17 : 83	-0.00	3
809	S00-T88#0 AND age=Preschool child AND H60-H95#0 AND R00-R99=0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	4
813 817	Z00-Z99≠0 AND age=Preschool child AND H60-H95≠0 J00-J99≠0 AND D50-D89≠0 AND L00-L99=0	$\rightarrow$	class=1 class=1	[0, 3]	20 : 80 20 : 80	-0.00	3
819	J00-J99#0 AND C00-D49#0 AND age#Preschool child AND K00-K95=0		class=1	[0, 3] [0, 3]	20 : 80	-0.00 -0.00	4
830	age=Middle-aged adult AND H60-H95=0 AND L00-L99=0 AND J00-J99=0 AND G00-G99=0	<i>→</i>	class=1	[5, 97]	6:94	-0.282	5
831	R00-R99≠0 AND J00-J99=0 AND F01-F99≠0 AND I00-I99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
833	100-I99≠0 AND C00-D49≠0 AND M00-M99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
837	age=Middle-aged adult AND J00-J99=0 AND N00-N99≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
839	J00-J99≠0 AND age=Preschool child AND E00-E89≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	3
841	age=Middle-aged adult AND J00-J99=0 AND E00-E89≠0 AND H00-H59≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
843	L00-L99≠0 AND age=Infant/Toddler AND H60-H95≠0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	3
844	L00-L99≠0 AND age=Adolescent AND M00-M99≠0 AND K00-K95≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
848	G00-G99≠0 AND age=Elder AND F01-F99=0	$\rightarrow$	class=1	[0, 3]	20 : 80	-0.00	3
849	100-199#0 AND S00-T88#0 AND N00-N99=0	$\rightarrow$	class=1	[0, 3]	20:80	-0.00	3
851	H60-H95#0 AND age=Adolescent AND M00-M99#0	<b>→</b>	class=1	[0, 4]	17 : 83	-0.00	3
853 855	J00√J99≠0 AND age=School-aged child AND M00-M99≠0 AND L00-L99=0 R00-R99≠0 AND J00√J99=0 AND L00-L99≠0 AND E00-E89≠0	<i>→</i>	class=1 class=1	[0, 2] [0, 2]	25 : 75 25 : 75	-0.00 -0.00	4
859	age=School-aged child AND R00-R99=0 AND L00-L99=0 AND Q00-Q99=0 AND F01-F99=0	<i>→</i>	class=1	[0, 2]	3:97	-0.00	5
866	age=Adolescent AND H00-H59=0 AND N00-N99=0 AND L00-L99=0 AND K00-K95=0	<i>→</i>	class=1	[4, 53]	8:92	-0.120	5
867	O00-O9A≠0	$\rightarrow$	class=1	[1, 2]	40 : 60	-0.918	1
871	age=Young adult AND J00-J99=0 AND S00-T88≠0 AND E00-E89=0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
874	age=Elder AND L00-L99≠0 AND N00-N99=0 AND K00-K95≠0	$\rightarrow$	class=1	[0, 2]	25 : 75	-0.00	4
	+ 902 more						

+ 902 more

OC Analysis

Target class: 1

