





TOPIC

IDENTIFY WINE BASED ON A DESCRIPTION THAT A SOMMELIER COULD GIVE.



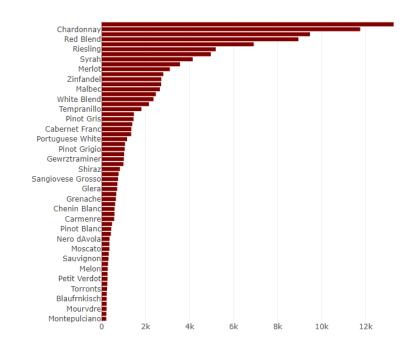


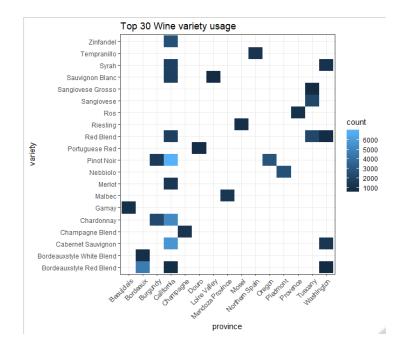
Chardonnay

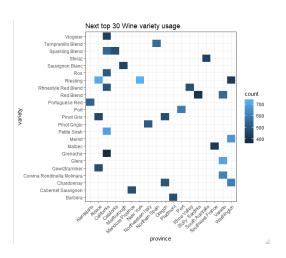
tropical crisp acidity
green freshgood mineral
sweet balanced Jemon toast
style wood ripe buttered finish
pineapple citrus orange yellow
texture aromasrich bright
lime shows light dry offers Oak
character spice well finity
Chardonnay white
touch fruit soft my palate
touch pear bodied





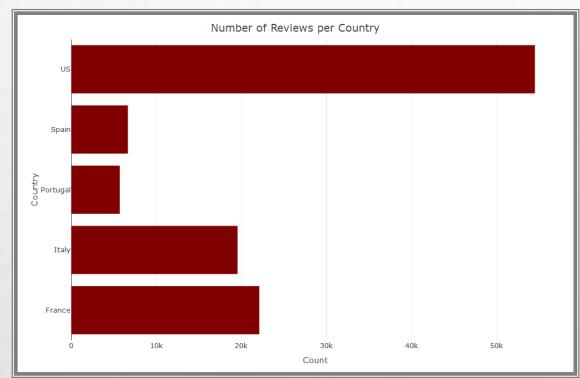


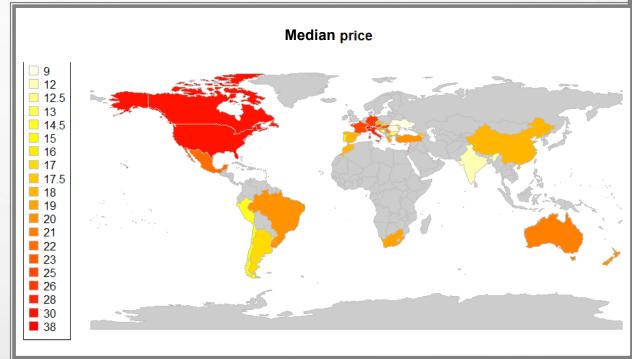












United States

cherry
ripefinish
dry light raspberry
dried apple black green
chocolate acidity shows
style pepper cabernet blend
vanilla crisp plum well
soft pinot years lemon rich bodied
full spicetexture dark
palate blackberry
oaktannins sweet good
nose cherries
vineyard
fruit aromas

France

fruits
spice rich structure
attractive structured freshness
bright great
great years

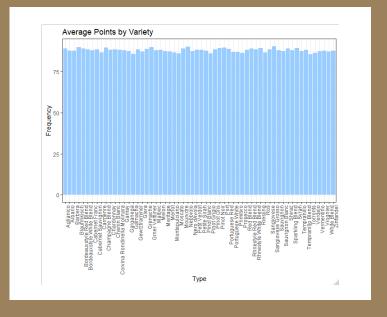
bright plust acidity great
red
great great freshness
fresh citrus apple aging soft great
aftertaste fruitness full grift richness
fresh citrus apple aging soft great
age texture
graph great fruitness
fresh citrus apple aging soft great
great gr

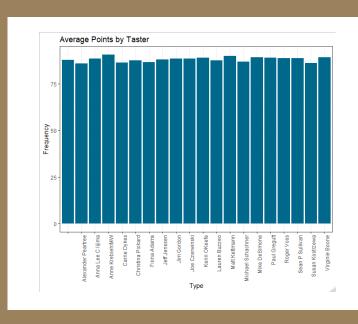
Non-US Countries

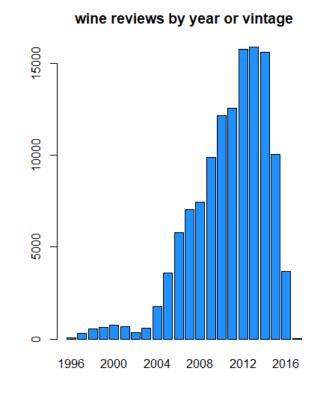
fruity aromas
ripe cherryrich
black offers finish soft fruits
full juicy vanilla firm balanced shows
touch structure blackberry lemon character
berry tannins dry nose
plumpepper texturemineral wood
red bright citrus light sweet
red bright crisp note well oak
palate spice
fresh peach white
acidity

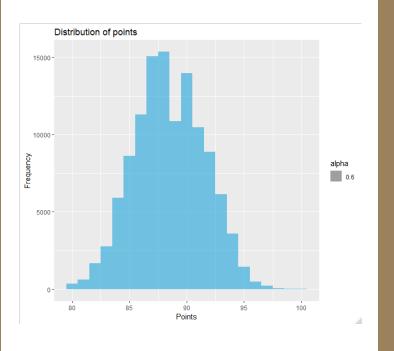














WHAT ARE THE RULES?

	LHS	RHS	support	confidence 🔻	lift	count
[1]	{barrel,sample,tannins}	{BORDEAUXSTYLEREDBLEND}	0.002	0.987	16.271	236.000
[8]	{buttered,pineapple,toast}	{CHARDONNAY}	0.003	0.969	9.507	282.000
[12]	{acidity,buttered,toast}	{CHARDONNAY}	0.003	0.849	8.328	337.000
[193]	{cherry,dry,silky}	{PINOTNOIR}	0.002	0.834	7.242	216.000
[13]	{buttered,fruit,toast}	{CHARDONNAY}	0.002	0.812	7.967	255.000
[9]	{buttered,toast,vanilla}	{CHARDONNAY}	0.003	0.808	7.926	328.000
[409]	{fruit,oak,tropical}	{CHARDONNAY}	0.003	0.799	7.837	278.000
[1518]	{acidity,apple,oak}	{CHARDONNAY}	0.002	0.779	7.642	229.000
[2368]	$\{berry, cherry, palate, rose, tannins\}$	{NEBBIOLO}	0.002	0.778	31.839	253.000
[1519]	{apple,finish,oak}	{CHARDONNAY}	0.002	0.777	7.627	241.000

TOP 10 RULES SORTED BY CONFIDENCE

COMMON WORDS FOR CHARDONNAY: "BUTTERED" & "TOAST"

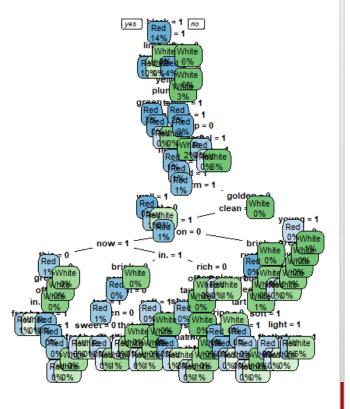


WHAT'S THE TREE?

Train/test: 0.66, Accuracy: 79.7%, precision 83%/75% C1/C2

GROWN TREE

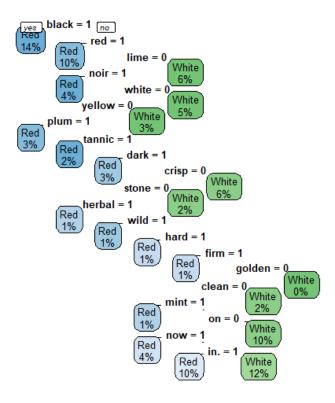
Decision tree 3: predict wine based on description.



cp=.00002, minbucket = 20,xval=3

PRUNED TREE

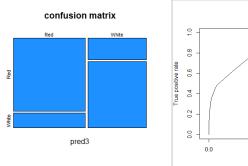
Pruned tree 3: predict wine based on description.

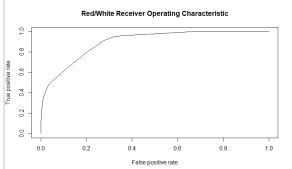


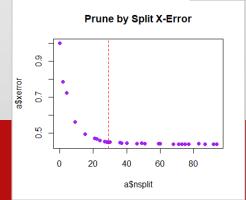
cp=.00596, minbucket = 20,xval=3

DIAGNOSTICS

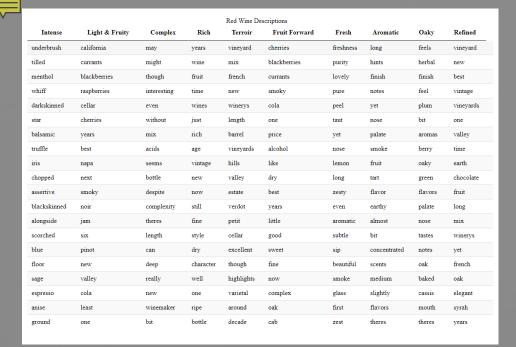
		Act		
		Red	White	(precision)
Predict	Red	6194	1241	83.3%
Pre	White	1496	4558	75.2%
	(recall)	80.5%	78.6%	



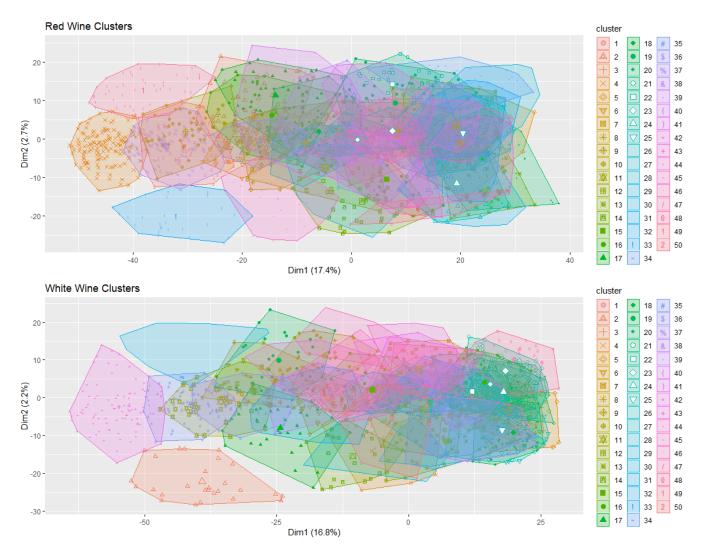








				White Win	e Descriptions				
Ripe Fruit	Lush	Floral	Structured	Rich	Aromatic	Complex	Oaky	Fruit Forward	Refined
finish	lovely	vineyard	aging	bottling	fruit	cherries	wines	currants	herbal
flavors	long	oak	fruits	purple	oak	cola	oak	blackberries	finish
wine	mix	texture	still	nose	dark	years	new	next	bit
fruit	yet	wine	wood	show	wine	alcohol	theres	cola	berry
notes	lush	black	age	beef	cherry	dry	fruit	pinot	aromas
nose	notes	fruit	character	dried	chocolate	oak	cabernet	cherries	flavors
palate	finish	yet	fruitiness	sip	black	currants	tart	one	plum
apple	complex	cherry	perfumed	blueberry	cabernet	rich	vineyard	years	feels
light	complexity	notes	textured	shows	tannins	one	vanilla	best	good
aromas	though	well	needs	elements	flavors	now	finish	complex	green
now	franc	nose	great	black	notes	blackberries	flavor	alcohol	feel
ripe	medium	red	although	palate	red	sweet	pinot	raspberries	like
cherry	new	finish	structure	pepper	finish	flavors	one	noir	mouth
citrus	scents	palate	structured	vineyard	vineyard	best	notes	now	oak
dry	lingering	floral	wine	meet	blend	shows	long	delicious	palate
spice	wines	dark	well	pomegranate	aromas	blackberry	color	oak	nose
acidity	time	pepper	ready	cola	sauvignon	good	smoke	dry	notes
fresh	body	minerality	aftertaste	slate	now	complex	like	vineyard	tastes
drink	cranberry	lemon	rich	dark	palate	wine	flavors	wines	flavor
oak	bodied	tannin	drink	touch	rich	chocolate	yet	smoky	vanilla









MODEL ACCURACY



Model	Accuracy			
Model	White	Red		
Decision Trees	79%	81%		
Naïve Bayes	56 %	1.4%		
SVM	72 %	72 %		
Random Forest	72 %	81%		
KNN	64%	76%		



CONCLUSION

- IDENTIFYING WINE BY A REVIEW IS FEASIBLE
- WINE DISTRIBUTORS CAN USE FOR MARKETING AND TARGETING SPECIFIC CONSUMER TASTES
- SAVE THE SOMMELIER SALARY \$150K/YEAR

