




Building A Digital Cheese Sommelier

By Michael Knight



The earliest direct evidence of cheese making dates back to 5500 BC in Kujawy, Poland

BUT

It is believed that cheese was discovered around 8000 BC!!

<https://www.thespruceeats.com/the-history-of-cheese-1328765>

<https://www.forbes.com/sites/brianroberts/2018/03/05/the-history-of-cheese/#287fa5d94ca1>



Brie cheese



Bleu de Gex



Maccagno cheese



Berkswell cheese



Maroilles cheese



Mozzarella



Queso fresco



Smoked cheese



Bergader Almkase cheese



Sheep milk cheese from Poland



Cœur de Neufchâtel



Devil's Gulch cheese



Camembert



Saint-Julien aux noix



Bavaria blu cheese



Edam



Sainte-Maure de Touraine



Tentation du Vercors



Bleu d'Élizabeth



Météorite fromage



Ricotta



Rigotte de Condrieu



Parmigiano reggiano



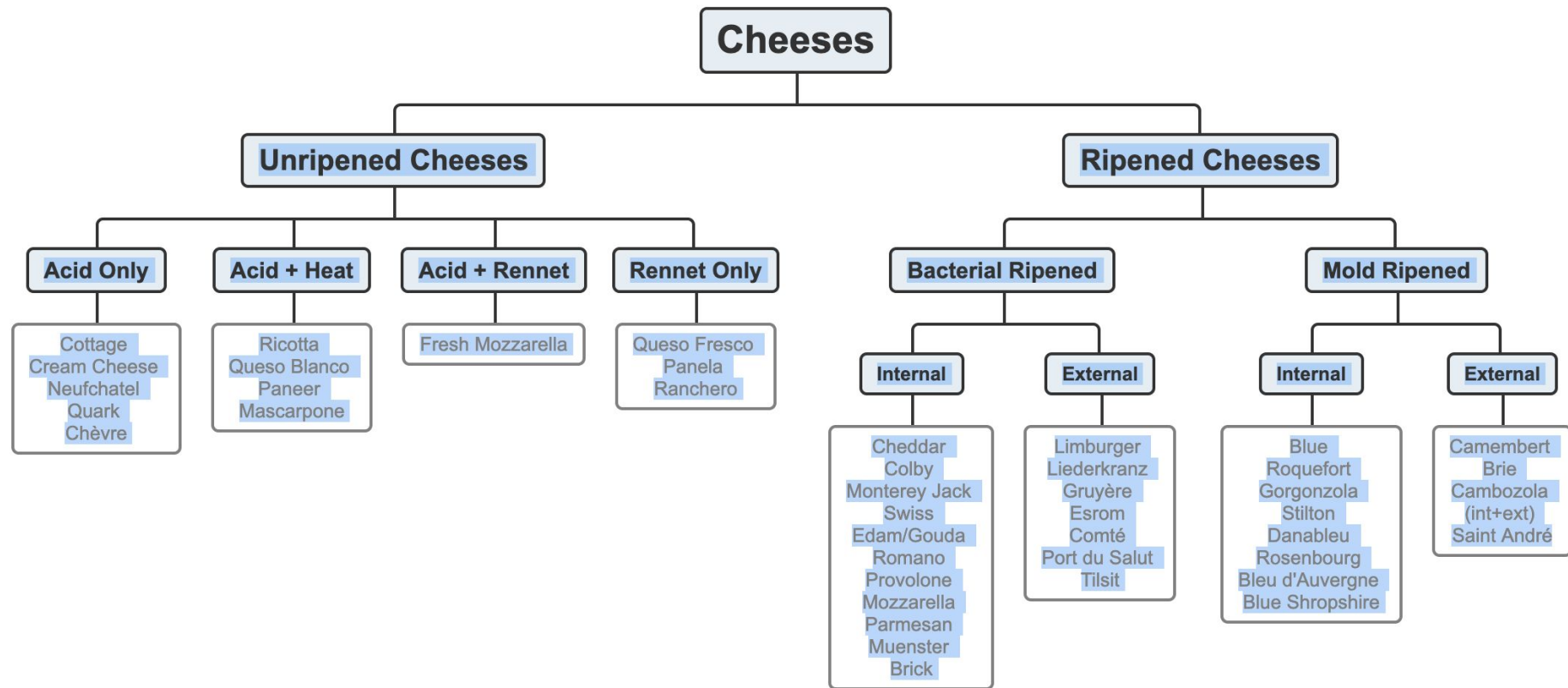
Chabichou du Poitou

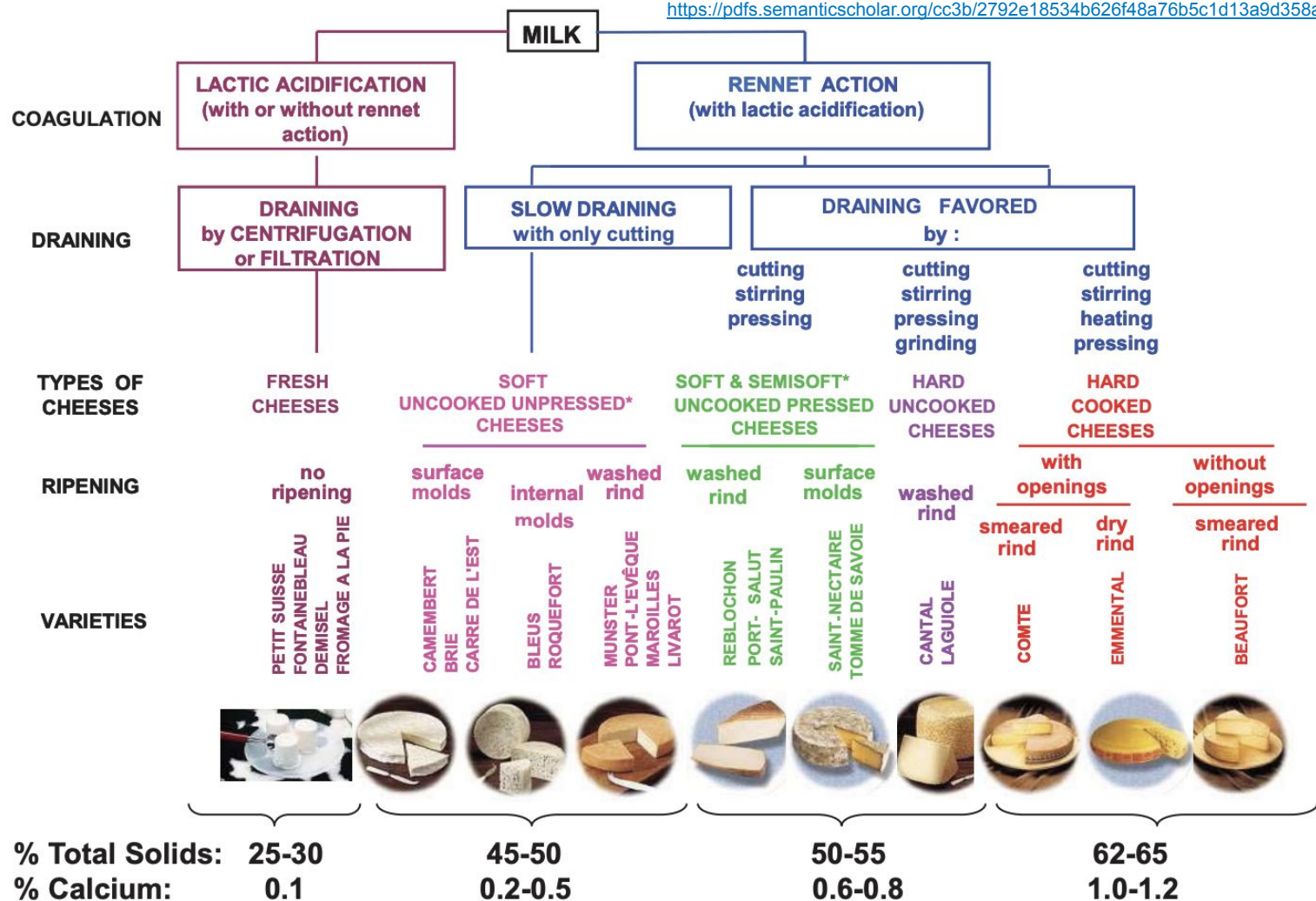


Österkron blue cheese

So Much Cheese!

There are over 3,000 cheeses that exist around the world (750 from France alone!), with around 500 different varieties recognized by the International Dairy Federation (and that's only as of 1981!)







So many Cheeses! So many features!

If only there were some machine that could “recommend” a cheese, should it be given a cheese I like and a list of features that I wanted the “recommended” cheese to satisfy...

Oh SNAP wait a tick



Tip

The Python coding language was named after Monty Python, so try to incorporate it into at least one presentation.



Cheese.com

Best dataset found 1,827 cheeses, 13 (useful) features

- **Scrape/Clean/Munge!**
Requests, BeautifulSoup, EDA
- **Dummy the features!**
Turn the 13 qualitative features into 260 binary features
- **Cosine Similarity!**
Use the pairwise-distance function to compare every cheese with every other cheese

Name	Milk	Country of origin	Region	Type	Texture	Rind	Flavour	Aroma	Vegetarian	Producers	Description	Fat content	Family
Boursault	pasteurized cow's milk	France	Val-de-Marne	soft, soft-ripened	creamy, smooth and spreadable	bloomy	buttery, citrusy, nutty, salty	earthy	no	NaN	Originating in the French region of Val-de-Mar...	75.0	Brie
Brillat-Savarin	pasteurized cow's milk	France	Ile de France	semi-soft, artisan	creamy and dense	mold ripened	buttery, nutty, sour	milky	no	Fromagerie Lincet, Fromagerie Rouzaire	Brillat-Savarin is a triple cream dessert chee...	75.0	NaN
Creamy Lancashire	pasteurized or unpasteurized cow's milk	England	Lancanshire	fresh soft, artisan	creamy, fluffy and smooth	natural	buttery, creamy, smooth	rich	no	Butlers Farmhouse Cheeses, Dewlay Products Ltd...	Lancanshire cheese has been made in Lancanshir...	75.0	NaN
Delice de Bourgogne	pasteurized cow's milk	France	Burgundy	soft, soft-ripened	creamy and smooth	bloomy	buttery, mushroomy, smooth, tangy	mushroom, pungent, strong	no	Fromagerie Lincet	Delice de Bourgogne is a French classic triple...	75.0	Brie
Explorateur	cow's milk	France	Île-de-France	soft	smooth and soft-ripened	bloomy	mild	NaN	no	Fromagerie du Petit Morin	L'Explorateur is a soft-ripened French cow's m...	75.0	NaN
Finn	unpasteurized cow's milk	England and United Kingdom	Herefordshire	soft, artisan	creamy and firm	bloomy	buttery, nutty, salty, sweet	earthy, fresh	no	Neal's Yard Dairy	Finn is an unpasteurised, soft-white cheese pr...	75.0	NaN
Grand Vatel	pasteurized cow's milk	France	Val-de-Marne	soft, soft-ripened	creamy, smooth and spreadable	bloomy	buttery, citrusy, nutty, salty	earthy	no	NaN	Originating in the French region of Val-de-Mar...	75.0	Brie

	Fat_less than 0.15%	Fat_0.16- 3%	Fat_4- 19%	Fat_20- 39%	Fat_40- 59%	Fat_60- 74%	Fat_75%+	Milk_vegan	Milk_cow	Milk_goat	...	Country of origin_Palestine	Country of origin_Belarus	Country of origin_Ukraine
Name														
Abbaye de Belloc	0	0	0	0	0	0	0	0	1	0	...	0	0	0
Abbaye de Belval	0	0	0	0	1	0	0	0	1	0	...	0	0	0
Abbaye de Citeaux	0	0	0	0	0	0	0	0	1	0	...	0	0	0
Abbaye de Timadeuc	0	0	0	0	0	0	0	0	1	0	...	0	0	0
Abbaye du Mont des Cats	0	0	0	0	1	0	0	0	1	0	...	0	0	0
Abbot's Gold	0	0	0	0	0	0	0	0	1	0	...	0	0	0
Abertam	0	0	0	0	1	0	0	0	0	0	...	0	0	0
Abondance	0	0	0	0	1	0	0	0	1	0	...	0	0	0
Acapella	0	0	0	0	0	0	0	0	0	1	...	0	0	0
Accasciato	0	0	0	0	0	0	0	0	1	0	...	0	0	0
Ackawi	0	0	0	0	0	0	0	0	1	1	...	0	0	0
Acorn	0	0	0	0	1	0	0	0	0	0	...	0	0	0
Adelost	0	0	0	0	1	0	0	0	1	0	...	0	0	0
ADL Brick Cheese	0	0	1	0	0	0	0	0	1	0	...	0	0	0
ADL Mild Cheddar	0	0	1	0	0	0	0	0	1	0	...	0	0	0



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With a sleek elegant
dropdown display %
ipywidgets, finding your
cheese is sexy and fun

Hello there, I will be your Digital Cheese Sommelier this evening. Can I make a recommendation?
Please select a cheese you like and/or any cheese categories you may fancy:
(When you have selected your choices, please push the Recommend button at the bottom of the list)

name	La Tur	▼
cheese_type	-	▼
texture	creamy	▼
flavor	mushroomy	▼
aroma	barnyardy	▼
rind	-	▼
vegetarian	-	▼
family	-	▼
country	Denmark	▼
milk	sheep	▼
pasteurized	unpasteurized	▼
fat_content	60-74%	▼

Recommend

Unless you haven't worked in a cheese shop and read 4 different books on cheeses since age 15, then

THE RESULTS SPEAK FOR THEMSELVES



La Tur

Name

Rochebaron	0.515456
Perail de Brebis	0.569294
Cabrales	0.569472
Fresh Ricotta	0.569472
Brousse du Rove	0.578650
Doublet	0.582971
Baladi	0.617308
Bica de Queijo	0.617308
Hannah	0.635100
Odysseus Marinated Feta	0.635100

Michael Knight



Army of One
For Cheese