

Cédric - Janvier 2025



Prêt dépenser

Veille technique

Veille technique NLP

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Les données

Équilibre parfait des données

```
category
Home Furnishing      150
Baby Care             150
Watches               150
Home Decor & Festive Needs 150
Kitchen & Dining      150
Beauty and Personal Care 150
Computers             150
Name: count, dtype: int64
```

Le concept

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Réseau neuronal convolutionnel multicanal

Multiple taille des noyaux

Source:

<https://machinelearningmastery.com/develop-n-gram-multichannel-convolutional-neural-network-sentiment-analysis/>

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Le choix des mesures

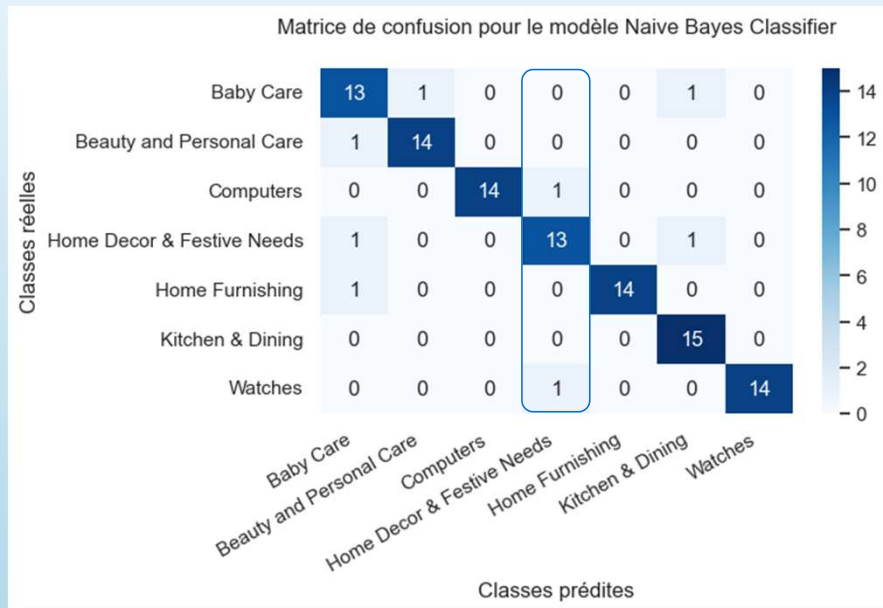
Score F1

Accuracy

Temps

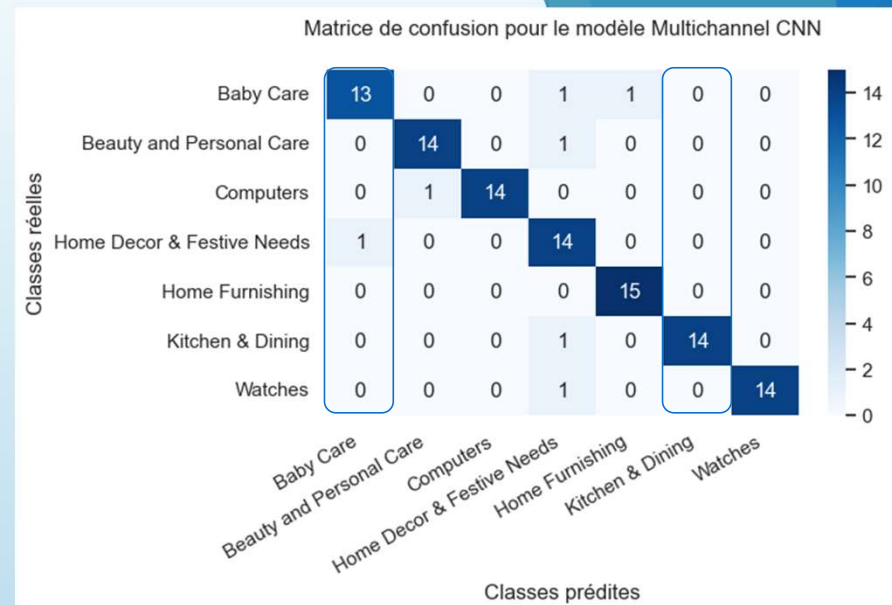
Les résultats

	CleanDescription	ClassifBayes	ClassifPoc	TrueLabels	SatusBayes	SatusPoc
107	artisan creation checker singl quilt comfort b...	Home Furnishing	Home Furnishing	Home Furnishing		
263	buy handicraft showpiec for handicraft showpie...	Home Decor & Festive Needs	Home Decor & Festive Needs	Home Decor & Festive Needs		
223	roll pizza cutter stainless steel pack price p...	Kitchen & Dining	Kitchen & Dining	Kitchen & Dining		
635	key featur wow babi girl gather red dress summ...	Baby Care	Baby Care	Baby Care		
185	ceram mug price coffe mug ador and fantast cof...	Kitchen & Dining	Kitchen & Dining	Kitchen & Dining		
177	ceram mug price coffe mug ador and fantast cof...	Kitchen & Dining	Kitchen & Dining	Kitchen & Dining		
924	buy brillianc lip color for from price onli ge...	Beauty and Personal Care	Beauty and Personal Care	Beauty and Personal Care		
624	specif solid singl breast casual blazer gener ...	Baby Care	Baby Care	Baby Care		
1045	empow extra larg self adhes sticker pack price...	Home Decor & Festive Needs	Baby Care	Baby Care	Failed	
586	sonata dean analog watch for men buy sonata de...	Watches	Watches	Watches		
54	key featur mobil power enabl android smart pho...	Computers	Computers	Computers		
27	digit watch for boy buy digit watch for boy in...	Watches	Watches	Watches		
881	cotton bath towel red price print towel design...	Home Furnishing	Home Furnishing	Home Furnishing		
24	analog watch for men boy buy analog watch for ...	Watches	Watches	Watches		
585	analog watch for men buy analog watch for men ...	Watches	Watches	Watches		
115	black toner black price compat with the follow...	Computers	Computers	Computers		
424	key featur style decor hair clip pack style de...	Baby Care	Beauty and Personal Care	Beauty and Personal Care	Failed	
313	buy ice drive and dynam puls set onli for from...	Beauty and Personal Care	Beauty and Personal Care	Beauty and Personal Care		
186	gam wallpap ceram mug price give thrill yet fr...	Kitchen & Dining	Kitchen & Dining	Kitchen & Dining		
411	buy aero care blue ladi set onli for from onli...	Beauty and Personal Care	Beauty and Personal Care	Beauty and Personal Care		



Rapport de classification pour le modèle Naive Bayes Classifier

	precision	recall	f1-score	support
Baby Care	0.81	0.87	0.84	15
Beauty and Personal Care	0.93	0.93	0.93	15
Computers	1.00	0.93	0.97	15
Home Decor & Festive Needs	0.87	0.87	0.87	15
Home Furnishing	1.00	0.93	0.97	15
Kitchen & Dining	0.88	1.00	0.94	15
Watches	1.00	0.93	0.97	15
accuracy			0.92	105
macro avg	0.93	0.92	0.92	105
weighted avg	0.93	0.92	0.92	105

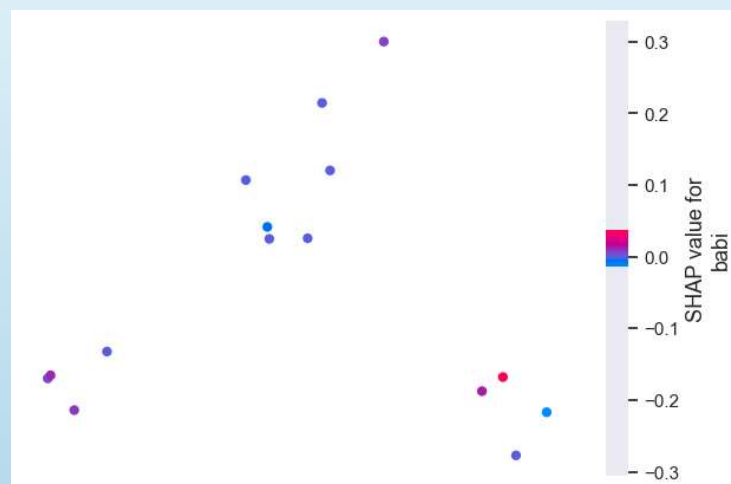


Rapport de classification pour le modèle Multichannel CNN

	precision	recall	f1-score	support
Baby Care	0.87	0.87	0.87	15
Beauty and Personal Care	0.93	0.93	0.93	15
Computers	1.00	0.93	0.97	15
Home Decor & Festive Needs	0.88	0.93	0.90	15
Home Furnishing	0.93	0.93	0.93	15
Kitchen & Dining	0.94	1.00	0.97	15
Watches	1.00	0.93	0.97	15
accuracy			0.93	105
macro avg	0.94	0.93	0.93	105
weighted avg	0.94	0.93	0.93	105

	Modèle	Temps	F1Score	Accuracy
0	modèle Naive Bayes Classifier	0.0328	0.923810	0.923810
1	modèle Multichannel CNN	23.4400	0.933333	0.933333

Analyse feature importance



Classe « Baby Care »



Classe « Watches »

Merci pour votre
attention

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