

PROJET 6

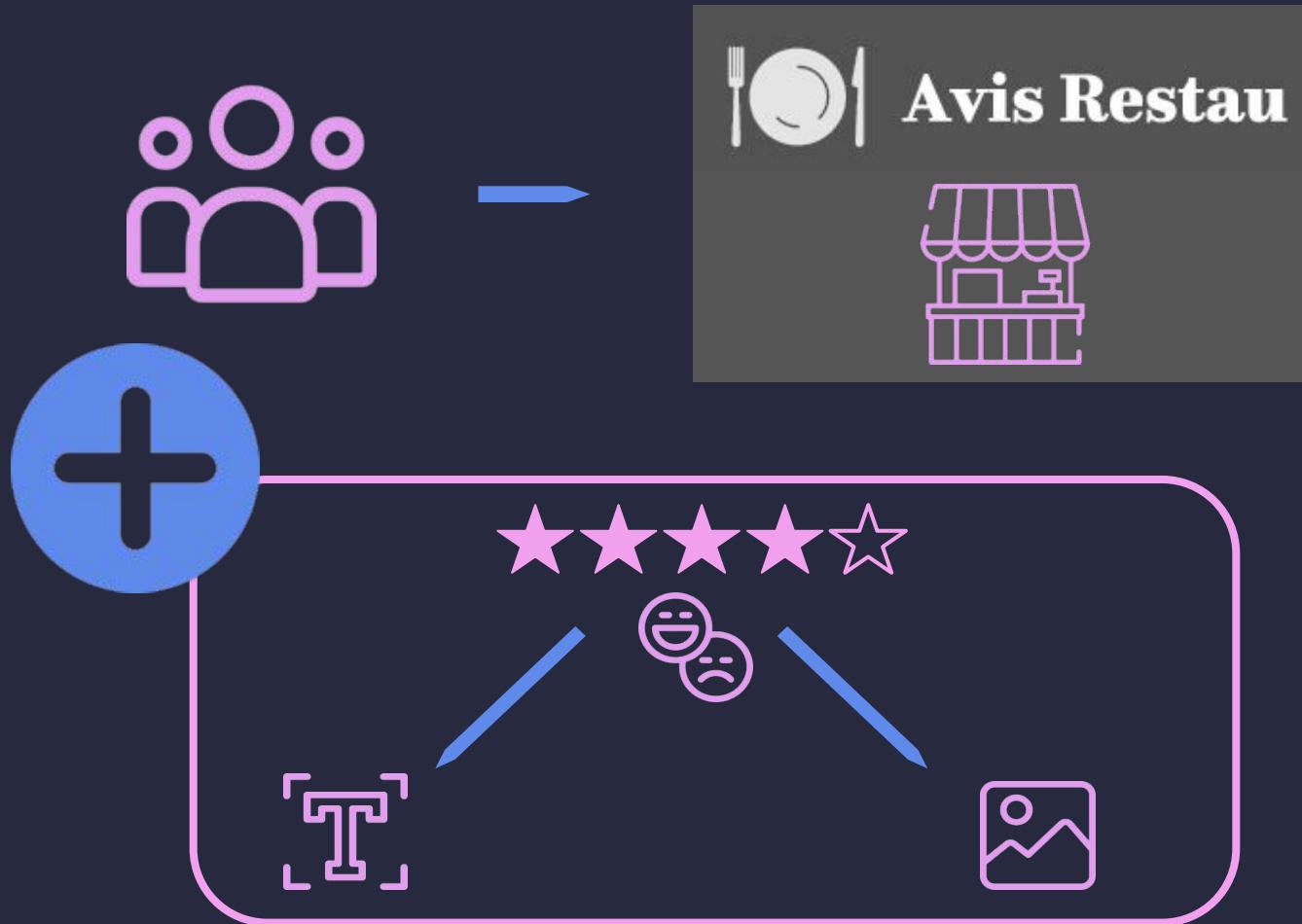
**Améliorer le produit IA
de votre entreprise**





CONTEXTE

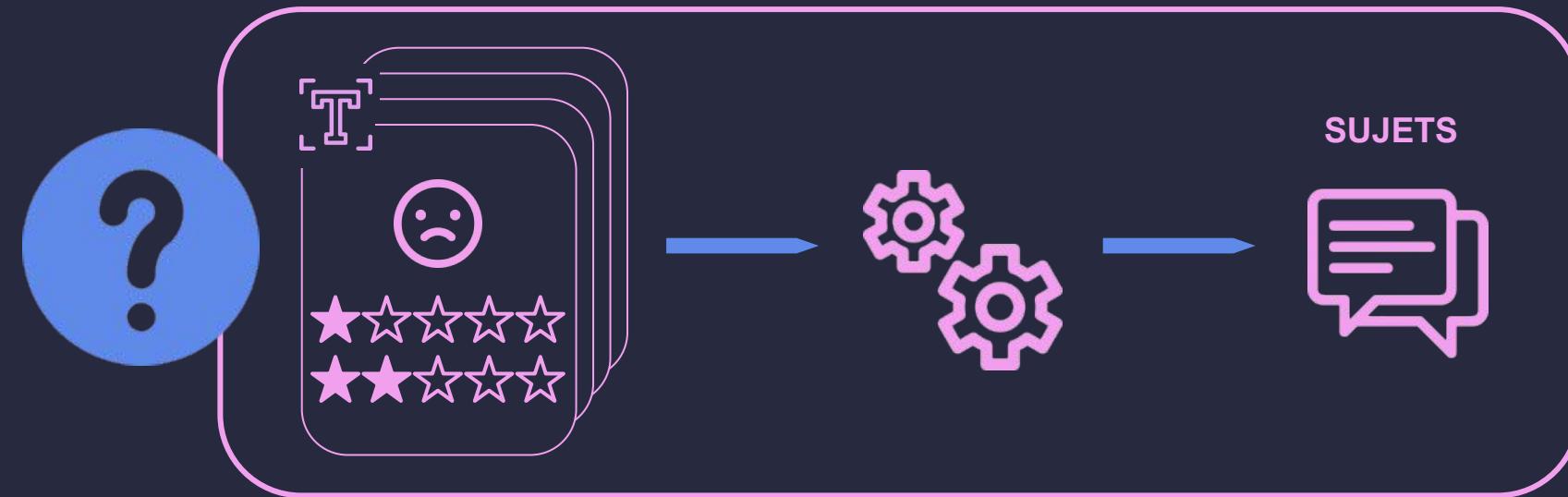






PROBLEMATIQUE 1

4

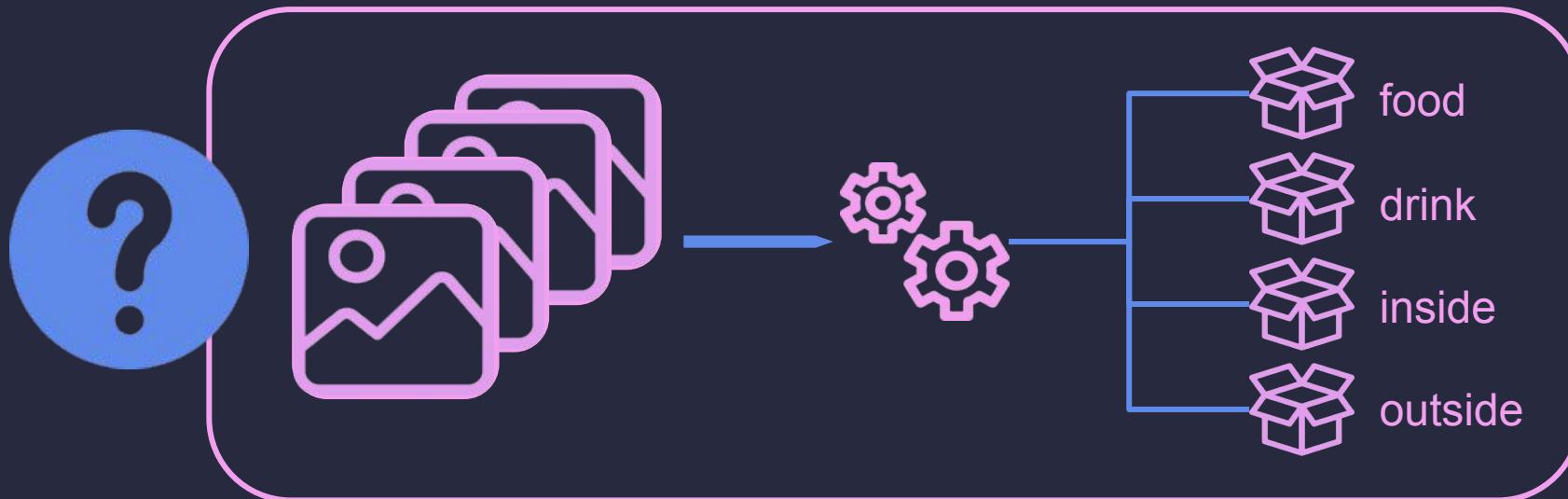


VALEUR AJOUTÉE





PROBLEMATIQUE 2



VALEUR AJOUTÉE



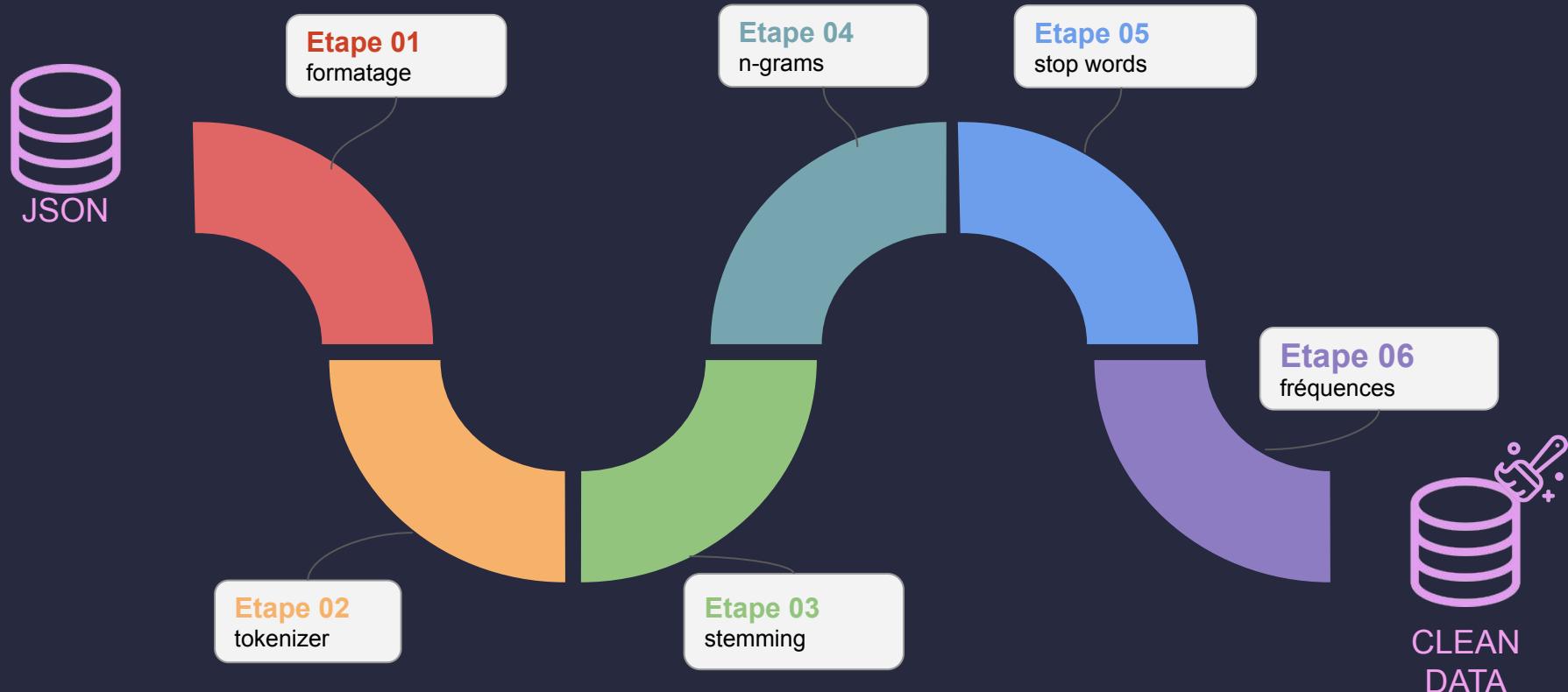
PARTIE 1: TEXTE

PREPROCESSING



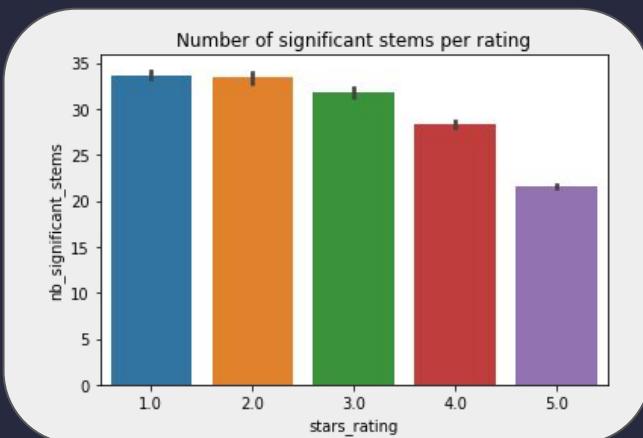
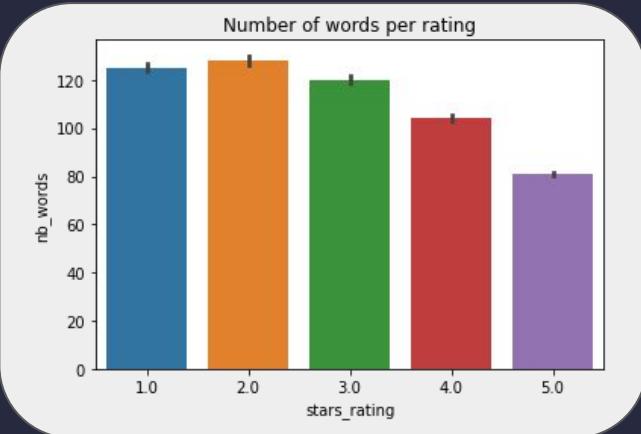
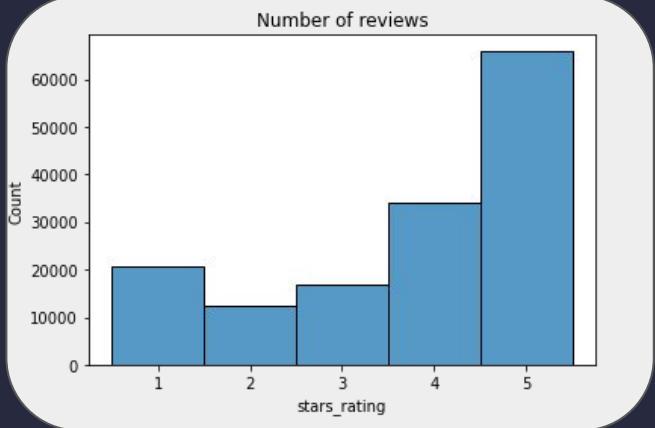
PIPELINE DE PREPROCESSING

7





EXPLORATION



PARTIE 1: TEXTE

EXTRACTION DE VARIABLES



BAG OF WORDS

10



Non structurées



COMMENTAIRES

FREQUENCES

MOTS

				...			
				...			
				...			
				...			
				...			

structurées

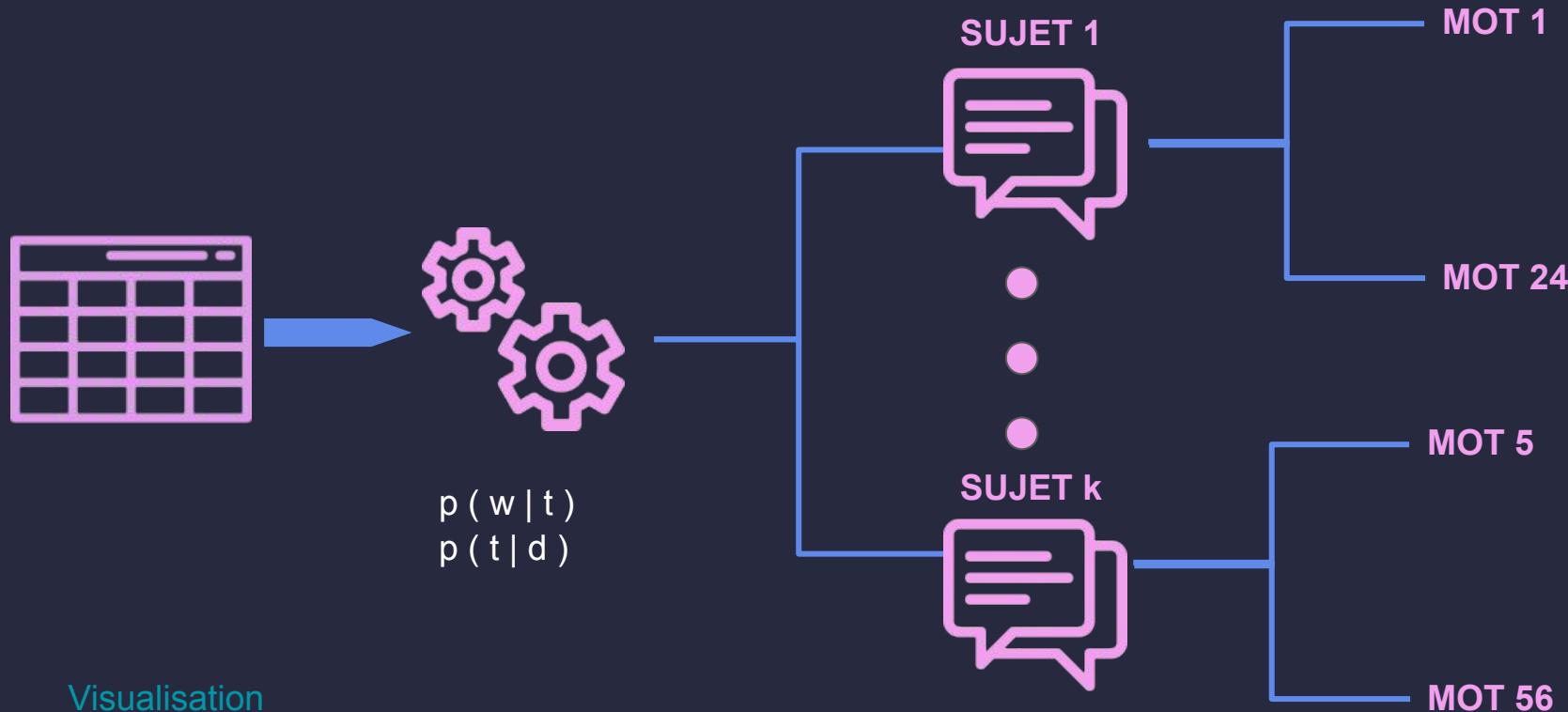
PARTIE 1: TEXTE

EXTRACTION DE SUJETS



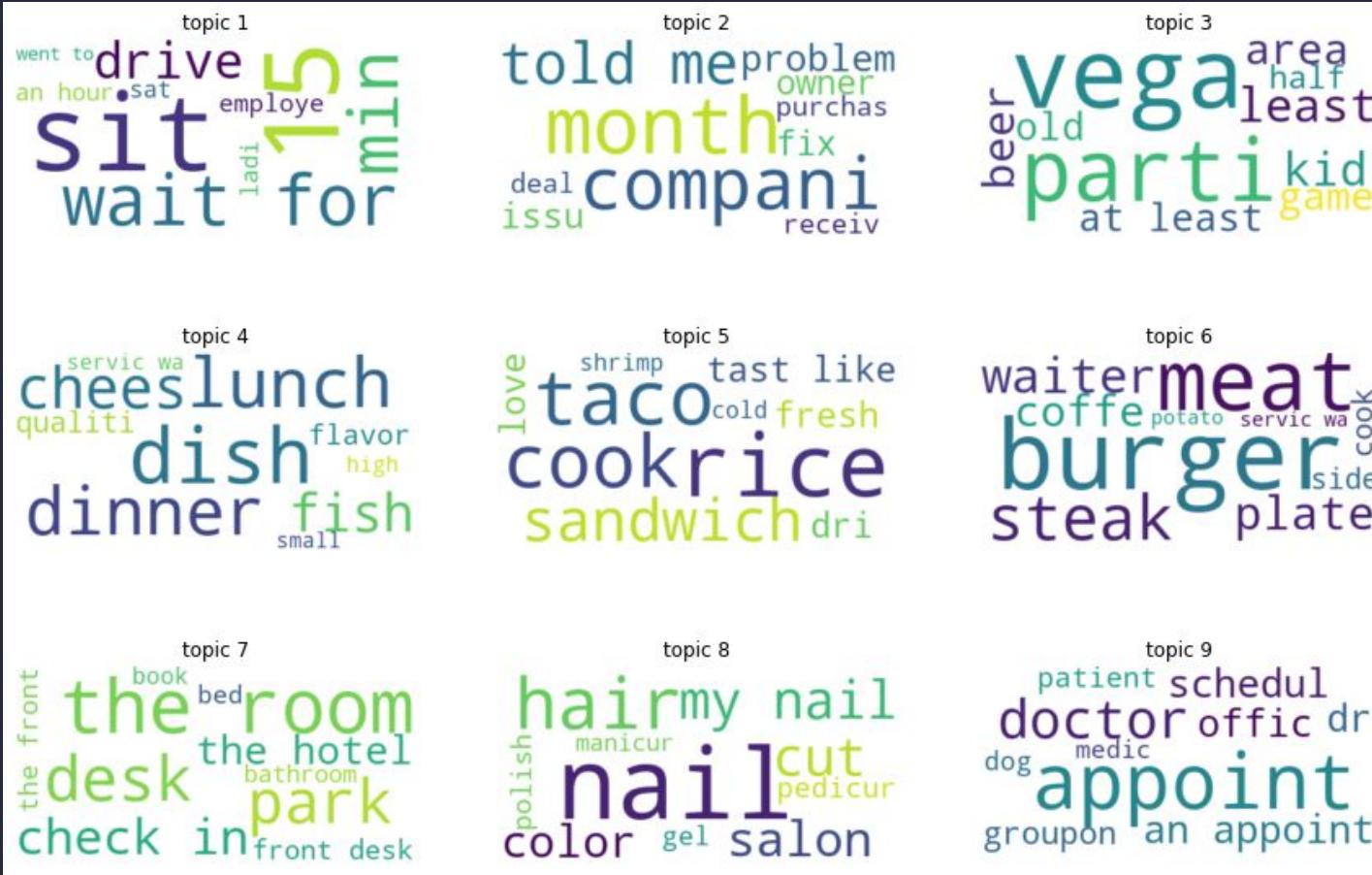
Latent Dirichlet Allocation

12





VISUALISATION DES THEMES





✓ Pipeline de preprocessing

✓ Possibilité d'extraction validée

Amélioration

Optimisation

Multilingue

Limitations

Ordre des mots

Rôle grammatical



PARTIE 2: IMAGE

PREPROCESSING



PREPROCESSING IMAGE



Etape 01
Niveau de gris



Etape 02
Etirement de
l'histogramme



Etape 04
Filtrage

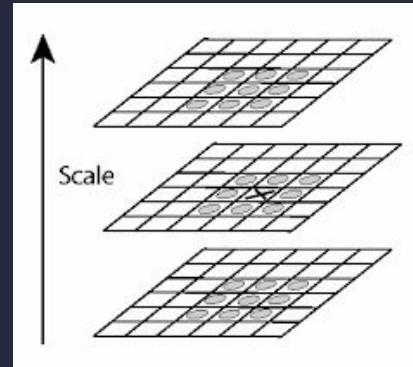
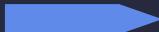


Etape 03
Egalisation



PARTIE 2: IMAGE

EXTRACTION DE VARIABLES



POI
Descripteurs



- Invariance à l'échelle
- Invariance à la rotation
- Invariance à la luminosité



SIFT





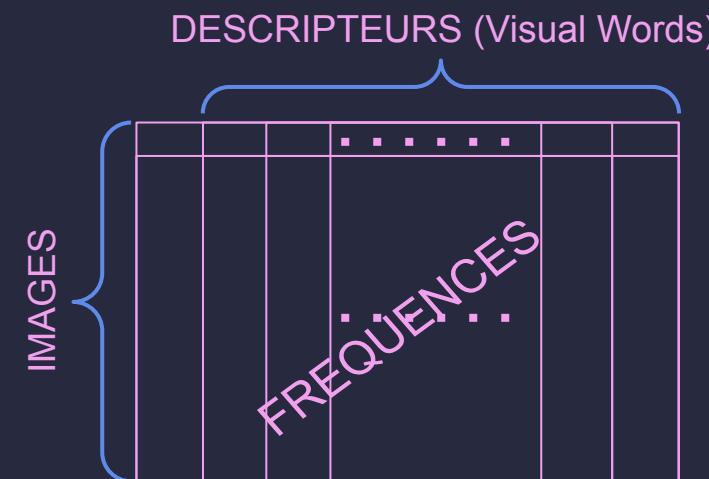
PARTIE 2: IMAGE

REDUCTION DE DIMENSION



BAG OF VISUAL WORDS

21



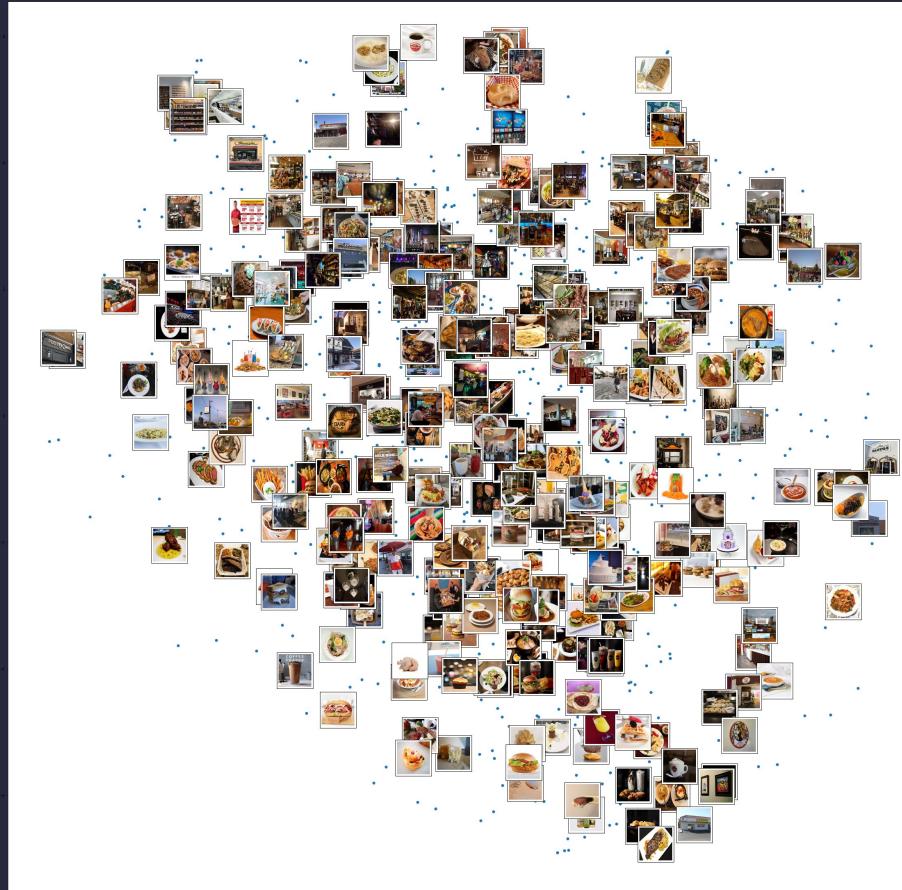


PARTIE 2: IMAGE

VISUALISATION

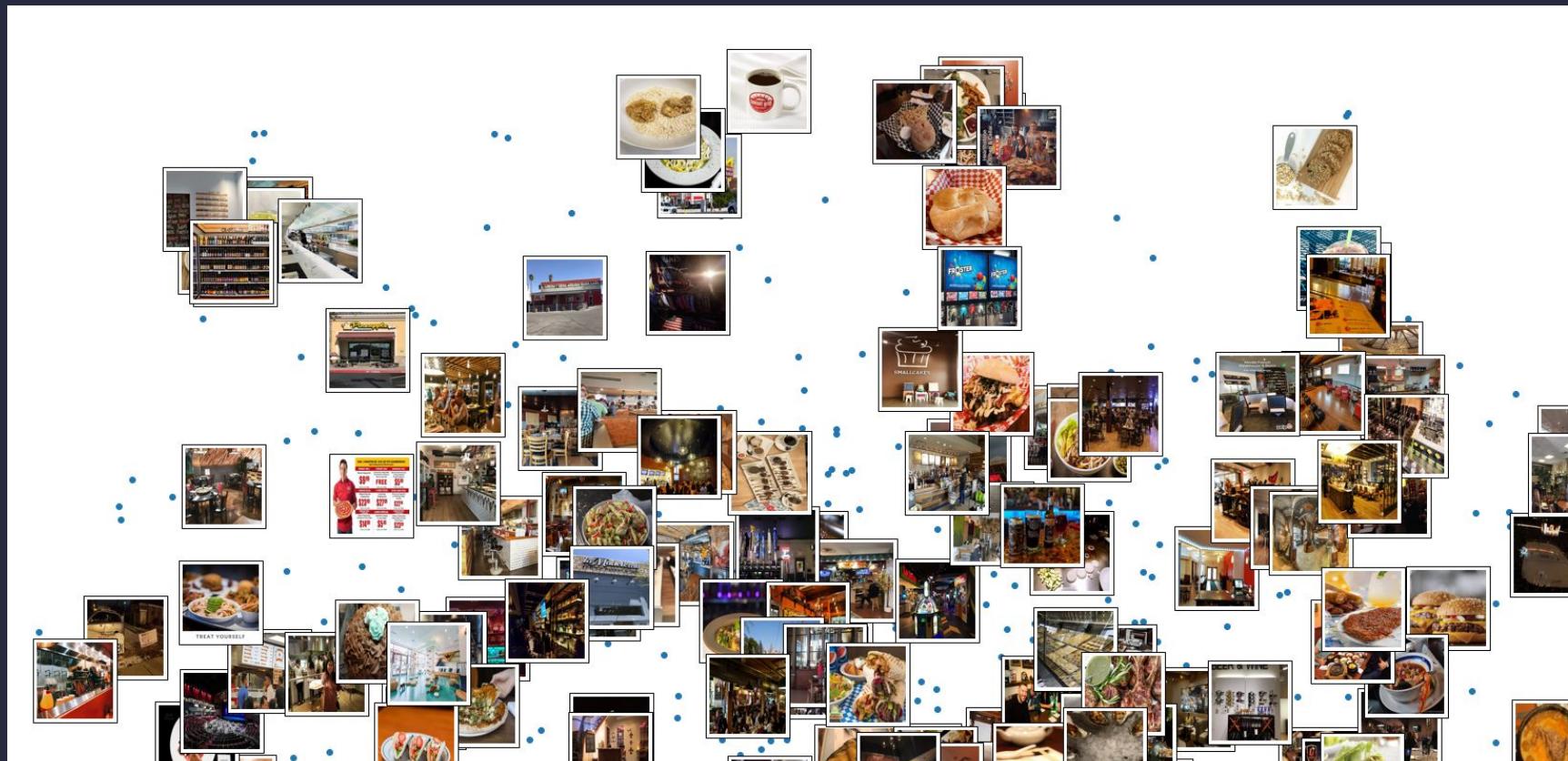


T-SNE





T-SNE





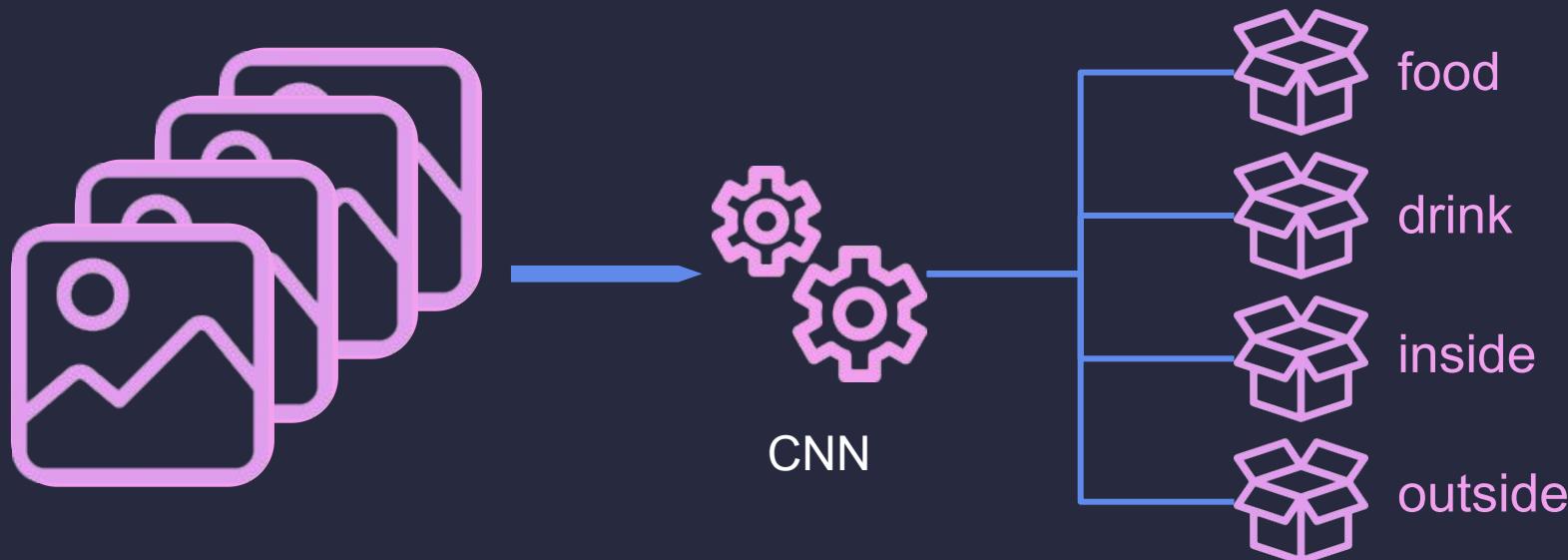
PARTIE 2: IMAGE

CLASSIFICATION AUTOMATIQUE

CNN
TRANSFER LEARNING

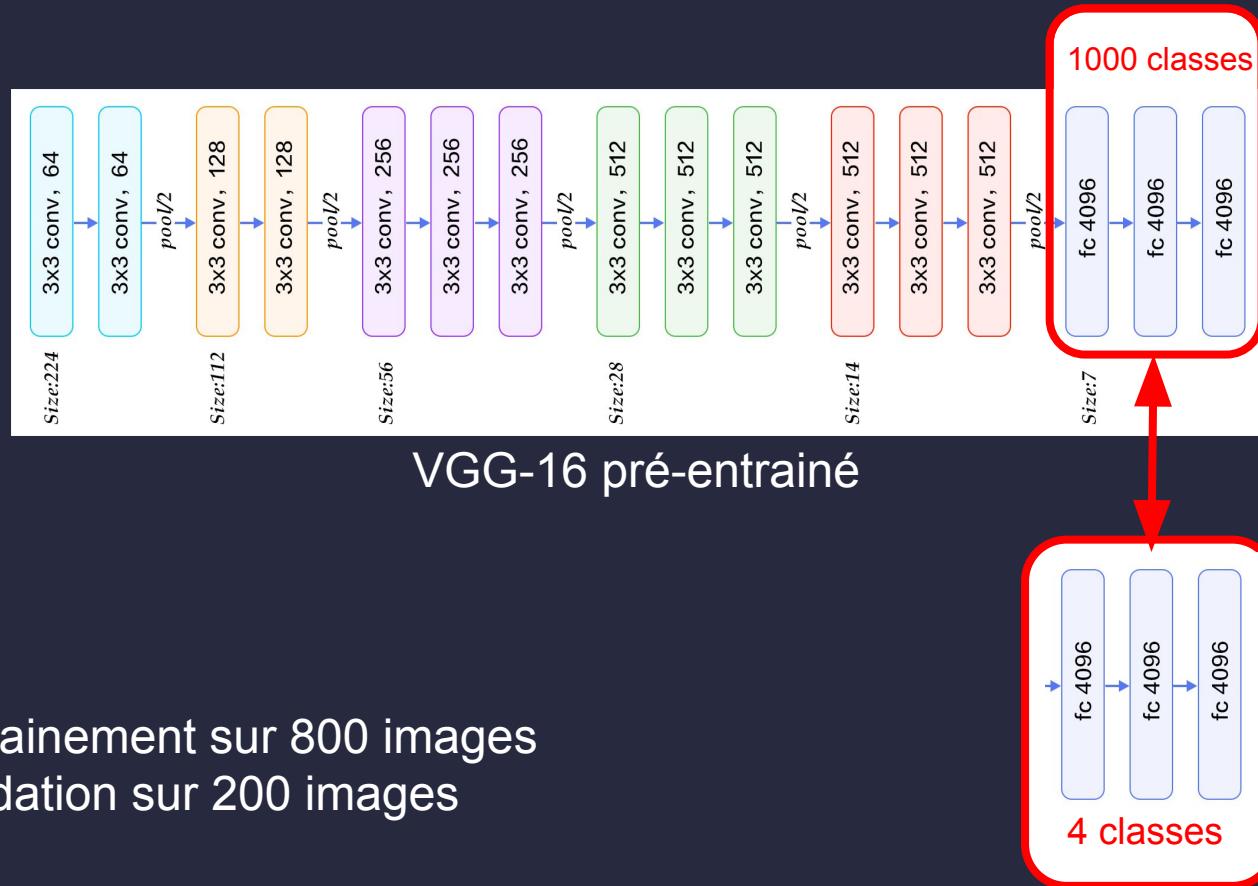


CLASSIFICATION SUPERVISEE





TRANSFERT LEARNING





RESULTATS

28

Precision (validation)



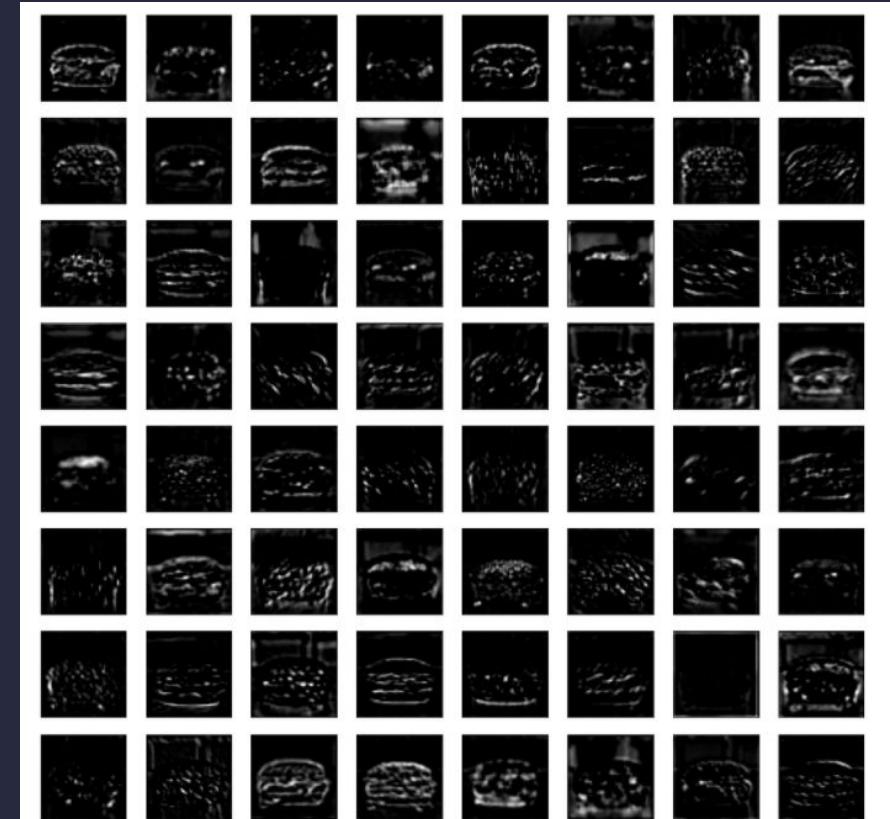


VISUALISATION

Feature map - sortie convolution 1



Feature map - sortie convolution 2





- ✓ Pipeline de preprocessing
- ✓ Possibilité de classification validée

Amélioration

Entrainement

Stratégie TL

Autres modèles

Merci



TD-IDF - Classification

