

# **MASTERING TXTAI VISION, SPEECH & DATA PROCESSING**

**AUTOMATE TASKS  
USING AI MODELS**



# CHALLENGES SOLVED

## 1) SPEECH TO TEXT    3) IMAGE PROCESSING    4) TEXT PROCESSING

- **TEXTTOSPEECH**
- **TRANSCRIPTION**
- **DATA PROCESSIN**
- **SEGMENTATION**
- **TABULAR**
- **TEXT EXTRACTION**
- **CAPTION**
- **IMAGE HASH**
- **OBJECTS**
- **ENTITY**
- **EXTRACTIVE QA**
- **GENERATOR**
- **LABELING**
- **SEQUENCES**
- **SIMILARITY**
- **SUMMARY**
- **TRANSLATION**

# KEY TOPICS & BENEFITS

- PIPELINES PROVIDES COMMON ENTRY POINT FOR INPUT
- SWAPPING OUT MODELS ARE SIMPLE
- MOVING THE DATA THROUGH MULTIPLE PIPELINE IS EFFORTLESS
- CAN BE USED AS PYTHON FUNCTION
- CAN BE USED AS CUSTOM FUNCTION WITH SEMANTIC SEARCH WITH SQL QUERY
- USED WITH WORKFLOWS INSIDE TXTAI
- AUTOMATES DATA INGESTION, PROCESSING AND STORING
- OUTPUT IS A GENERATOR WHICH CAN BE EVALUATED WHEN REQUIRED
- ANY TYPE OF UNSTRUCTURED DATA CAN BE FED IF THE APPROPRIATE MODEL / PIPELINE IS INITIATED
- REDUCES THE EFFORT REQUIRED IN BUILDING THE DATA FOR EMBEDDING

# LETS PRACTICE THE VISION USECASES

- NOTEBOOK WILL HAVE EXAMPLES  
**INTRODUCING TEXT RELATED PIPELINES**
- THE MODELS USED IN EACH PIPELINE  
**CAN BE LOOKED UP IN HUGGING FACE**
- THE 8 VISION TASKS IN HUGGINGFACE  
**DISCUSSED IN ANOTHER VIDEO IS A  
GOOD PRIMER**

**insightbuilder/  
python\_de\_learners\_data**



Repo contains the code, data and supporting documents including presentations, playbooks and additional documents to support learning

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**python\_de\_learners\_data/code\_script\_notebooks/projects/txtai\_exploration at main · insightbuilder/python\_de\_learners\_data**

Repo contains the code, data and supporting documents including presentations, playbooks and additional documents to support learning - python\_de\_learners\_data/code\_script\_notebooks/projects/txtai\_...

 GitHub

# THANKS FOR WATCHING

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