



Cognitive Search and Augmentation

Combining Microsoft Cognitive Services and Azure Search

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Content and Search Intelligence

We learn and
use technology.



Technology learns us
and discovers ways to be helpful.



Microsoft AI

AI SERVICES

CONVERSATIONAL AI

Bot Framework

TRAINED SERVICES

Cognitive Services

CUSTOM SERVICES

Azure Machine Learning

AI INFRASTRUCTURE

AI ON DATA

Cosmos DB

SQL DB

SQL DW

Data Lake

AI COMPUTE

Spark

DSVM

Batch AI

ACS

Edge

CPU, GPU, FPGA

AI TOOLS

CODING & MANAGEMENT TOOLS

VS Tools for Machine Learning

Azure ML Studio

Azure ML Workbench

Others (Pycharm, Jupyter notebooks...)

DEEP LEARNING FRAMEWORKS

Cognitive Toolkit

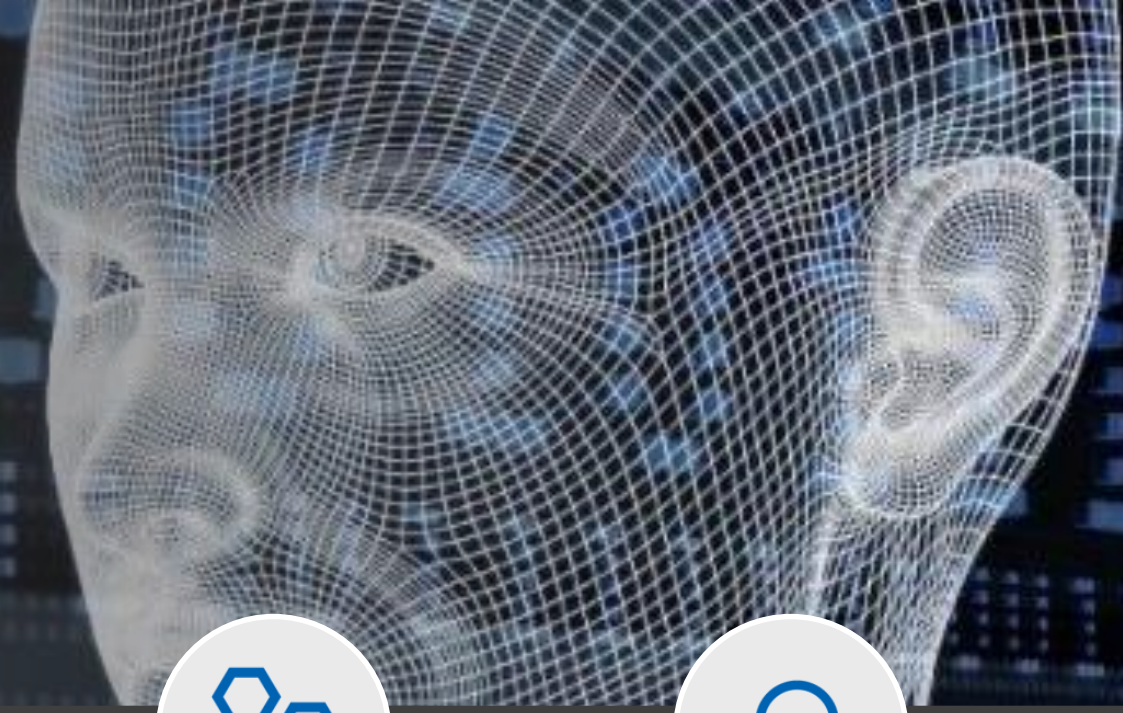
TensorFlow

Caffe

Others (Scikit-learn, MXNet, Keras, Gluon...)

Microsoft Cognitive Services

Give your apps a human side



Vision

From faces to feelings, allow your apps to understand images and video



Speech

Hear and speak to your users by filtering noise, identifying speakers, and understanding intent



Language

Process text and learn how to recognize what users want



Knowledge

Tap into rich knowledge amassed from the web, academia, or your own data



Search

Access billions of web pages, images, videos, and news with the power of Bing APIs

Microsoft Cognitive Services

Give your apps a human side



Computer Vision
Content Moderator
Emotion
Vision
Face
Video
Video Indexer
Custom Vision
Service

Bing Speech
Speaker
Recognition
Custom Speech
Speech
Service

Bing Spell Check
Linguistic Analysis
Text Analytics
Translator Text
& Speech
Language
Web Language
Model
Language
Understanding

Academic
Knowledge
Entity Linking
Knowledge
Knowledge
Exploration
Recommendations
QnA Maker
Custom Decision
Service

Bing
Autosuggest
Bing Image
Search
Search
Bing News
Search
Bing Video
Search
Bing Web Search
Bing Entity
Search
Bing Custom
Search

Enriching content through Cognitive Services

Demo

Analyzing text

"entityTypeHints": ["Person"],
"entityTypeDisplayHint": "Explorer"

Matthew Henson was born in 1866.

Peary hired him as a valet, and the two began a long working relationship that spanned half a dozen epic and amazing travels over two decades. In 1887, it was not easy to access **Aspirin** or **Ibuprofen**, think how challenging it might have been reaching the **North Pole**

"entityTypeHints": ["Drug"

"entityTypeHints": ["Place"

Text Analytics

Language: English

Sentiment: **Positive**

Key Phrases : dozen epic, amazing travels, Aspirin, Ibuprofen, long working relationship, decades, Matthew Henson, Peary, valet, North Pole

Entity Linking Intelligent Service

Entities Identified

Bing Entity Search API

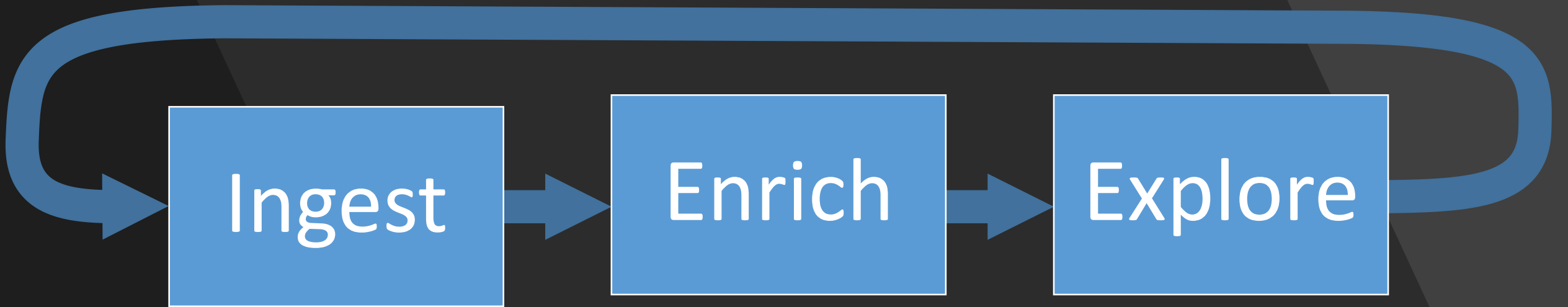
Entities Type



John F. Kennedy (JFK)

November 22, 1963

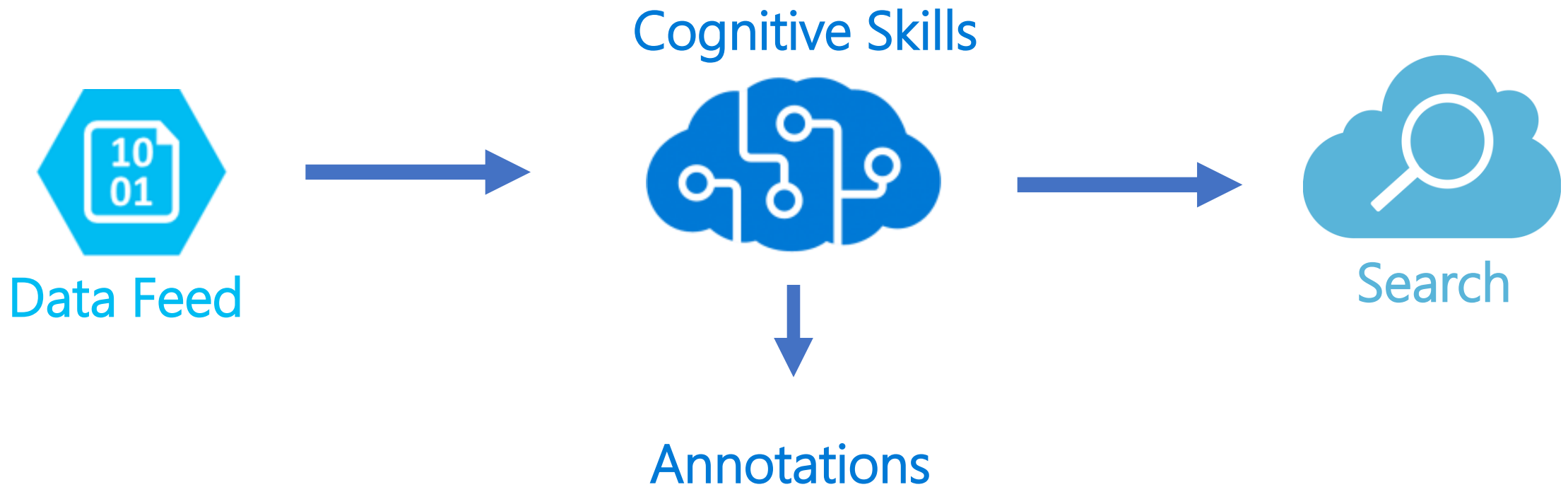
How do we do this?



Ingest

Enrich

Explore



Cognitive Search Pattern

