



Practical Deep Learning for Developers

Springfield Web Developers • October 2018

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IMAGE RECOGNITION

Object & Scene Detection • Image Moderation • Facial Analysis
Celebrity Recognition • Face Comparison • Image Text

VIDEO ANALYSIS

Labels • Faces • People • Celebrities
Suggestive Adult Content • Explicit Adult Content

NATURAL LANGUAGE PROCESSING

Key Phrase Extraction • Sentiment Analysis • Syntax Analysis
Entity Recognition • Language Detection • Topic Modeling

CONVERSATIONAL INTERFACES

Voice • Text • Chat Bots • Call Center Apps • Information Bots
Enterprise Productivity • Personal Assistants • IoT

TEXT TO SPEECH • SPEECH TO TEXT

Content Creation • E-Learning • Telephony
Customer Service • Captions and Subtitles • Catalog Audio Files

LANGUAGE TRANSLATION

Multilingual Sentiment Analysis • On-Demand Translation
Real-time Translation

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IMAGE RECOGNITION

Object & Scene Detection - Identify thousands of objects. Detect scenes, such as a sunset or beach.

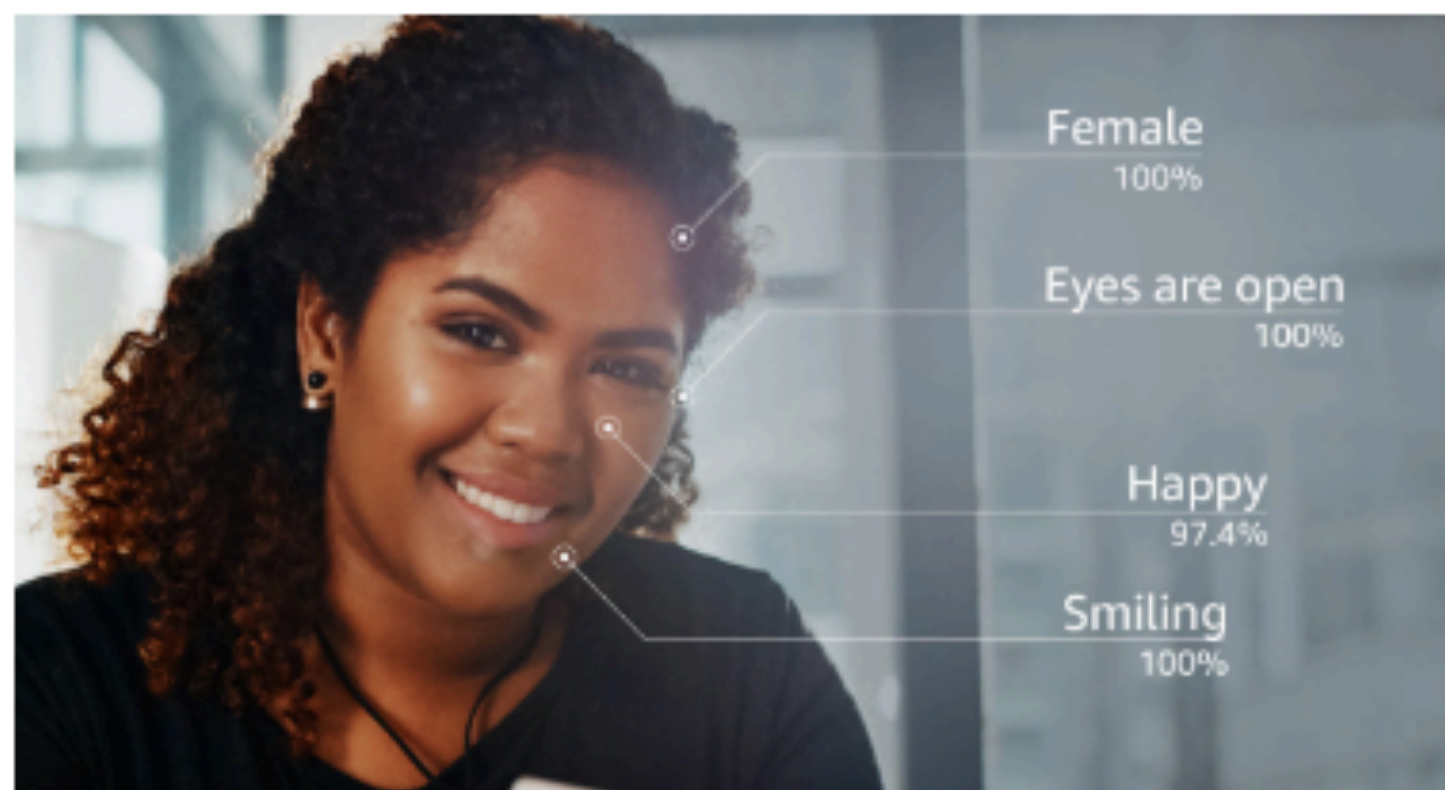
Image Moderation - Detect explicit and suggestive content so that you can filter images based on your application requirements

Facial Analysis - Locate faces within images and analyze face attributes, such as whether or not the face is smiling or the eyes are open.

Celebrity Recognition - Detect and recognize thousands of individuals who are famous, noteworthy, or prominent in their field.

Face Recognition and Comparison - Find similar faces in a collection of images. Measure the likelihood that faces in two images are of the same person.

Image Text - Locate and extract text within images, including text in natural scenes such as road signs or license plates.



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VIDEO ANALYSIS

Real-Time Analysis of Streaming Video - Perform facial recognition against collections of tens of millions of faces that you provide with very low latency

Object & Scene Detection - Identify thousands of objects. Rely on motion to identify complex activities, such as “blowing out a candle”.

Image Moderation - Detect explicit and suggestive content so that you can filter images based on your application requirements

Person Identification and Pathing - Capture the position of each person in a video, even when their face is blocked or they move in and out of the frame.



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NATURAL LANGUAGE PROCESSING

Key Phrase Extraction - Return the key phrases or talking points and a confidence score to support that this is a key phrase.

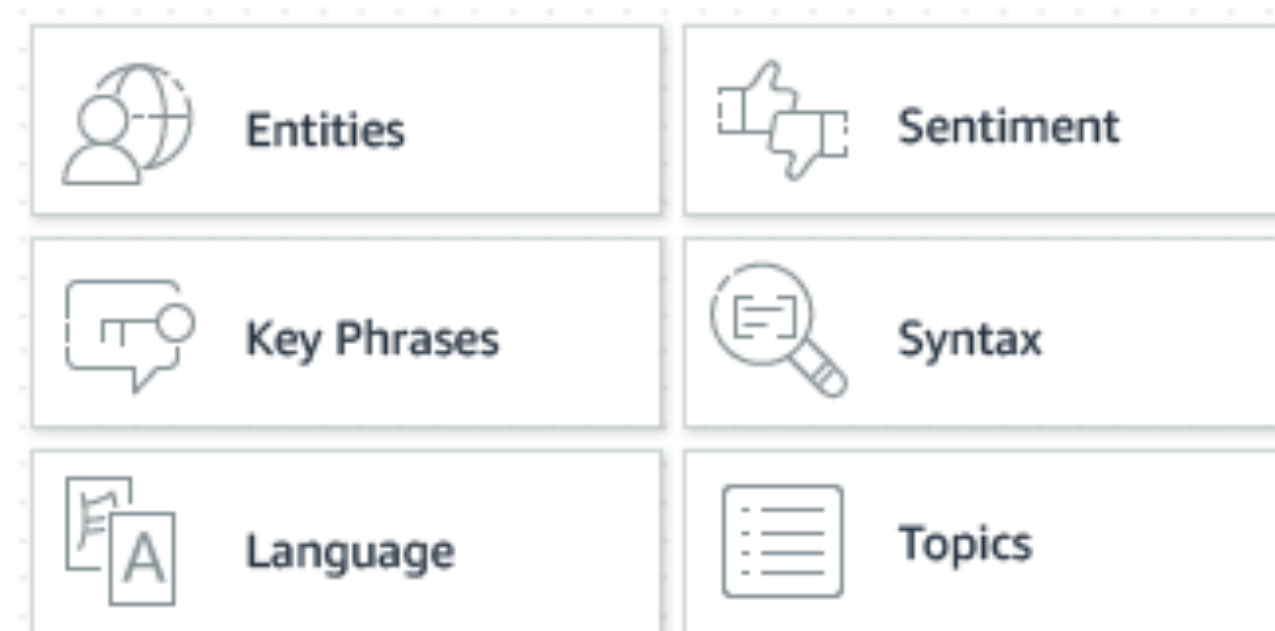
Sentiment Analysis - Return the overall sentiment of a text (Positive, Negative, Neutral, or Mixed).

Syntax Analysis - Analyze text using tokenization and Parts of Speech (PoS), and identify word boundaries and labels like nouns and adjectives.

Entity Recognition - Return the named entities ("People," "Places," "Locations," etc.) that are automatically categorized based on the provided text.

Language Detection - Automatically identifies text written in 100's of languages and return the dominant language with a confidence score.

Topic Modeling - Identify the most common topics in the collection and organize them in groups and then map which documents belong to which topic.



Extracted data and topics
with confidence scores

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CONVERSATIONAL INTERFACES

Call Center Bots - Change a password, request a balance on an account, or schedule an appointment, without needing to speak to an agent.

Information Bots - Access the latest news updates, game scores, or weather. Deploy to mobile devices, chat services, or IoT devices.

Enterprise Productivity Bots - Check sales data from Salesforce, marketing performance from HubSpot, and customer service status from Zendesk

Application Bots - Help customers perform many basic tasks, such as accessing their bank account, booking tickets, ordering food, or calling a cab

Internet of Things (IoT) - Build highly interactive and conversational user experiences for connected devices



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TEXT TO SPEECH • SPEECH TO TEXT

Content Creation - Generate speech in dozens of languages, making it easy to add speech to content for a global audience, such as websites or videos.

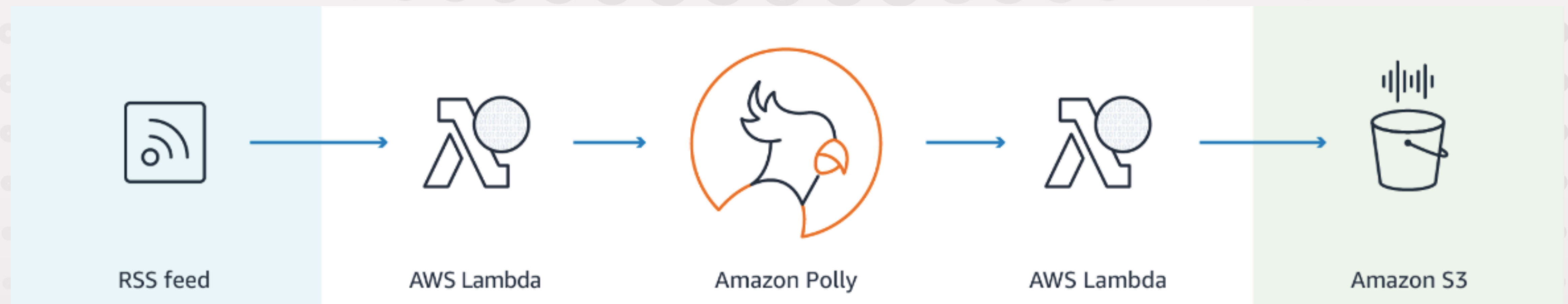
E-Learning - Provide applications with an enhanced visual experience such as speech-synchronized facial animation or karaoke-style word highlighting

Telephony - Deliver automated real-time information such as service status, account and billing inquiries, addresses, and contact information.

Customer Service - Build text analytics apps that can search and analyze voice input, mine the conversations for insights to extract meaning and intent.

Captions and Subtitles - Automatically generate time-stamped subtitles that can be displayed along with the video content

Catalog Audio Files - Transcribe audio and video assets into fully searchable archives



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LANGUAGE TRANSLATION

Multilingual Sentiment Analysis - Understand the social sentiment of your brand or service while monitoring online conversations in different languages

On-Demand Translation - Easily translate massive volumes of user-generated content in real-time

Real-time Translation - Provide automatic translation to enable cross-lingual communications between users for your applications

Source language

Auto (auto)



Lo siento, no hablo inglés.

Target language

English (en)



I'm sorry, I don't speak English.



Questions?

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