AWS re:Invent

WIN305

Hands-on examples for using AI/ML/DL in your .NET applications

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Agenda

- Machine Learning on AWS
- Amazon Rekognition
- Amazon Translate
- Amazon Polly
- Amazon Comprehend
- Amazon Transcribe
- Amazon Lex
- Labs

Machine Learning on AWS

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Machine Learning on AWS

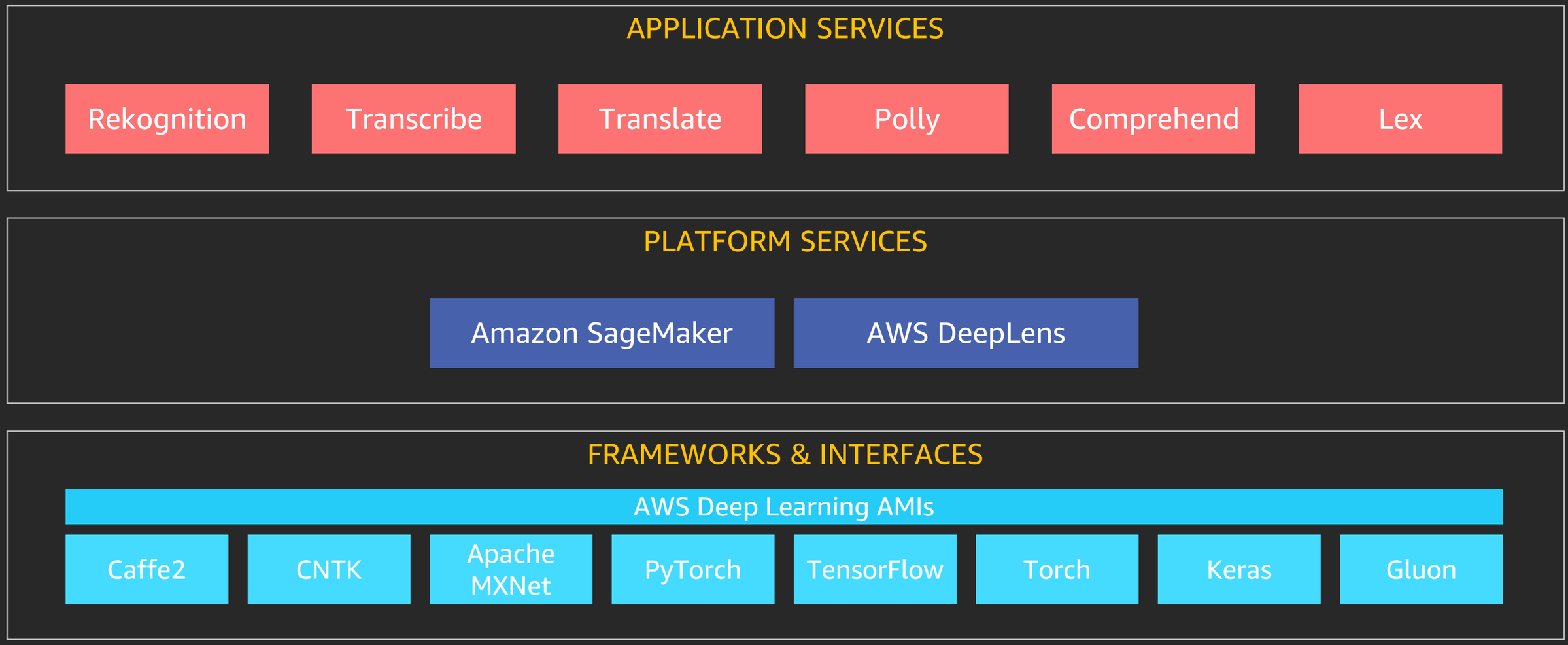
AWS has the broadest and deepest set of machine learning and AI services for your business

- Pre-trained AI services for computer vision, language, recommendations, and forecasting

- Amazon SageMaker to quickly build, train and deploy machine learning models at scale

- Build custom models with support for all the popular open-source frameworks

Amazon Machine Learning Stack



Amazon Rekognition

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Amazon Rekognition

Easily add intelligent image and video analysis to your applications

- Object, scene, and activity detection
- Facial recognition
- Facial analysis
- Pathing
- Unsafe content detection
- Celebrity recognition
- Text in images

Amazon Translate

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Amazon Translate

Natural and accurate language translation

- Fully-managed, continuously-trained, state-of-the-art neural machine translation
- Neural machine translation service that delivers fast, high-quality, and affordable language translation
- Neural machine translation is a form of language translation automation that uses deep learning models to deliver more accurate and more natural sounding translation than traditional statistical and rule-based translation algorithms
- Allows you to localize content (websites and applications) for international users, and to easily translate large volumes of text efficiently

Amazon Polly

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Amazon Polly

Turn text into lifelike speech using deep learning

- Create applications that talk, and build entirely new categories of speech-enabled products
- Text-to-Speech (TTS) service that uses advanced deep learning technologies to synthesize speech that sounds like a human voice
- It has dozens of lifelike voices across a variety of languages
- Offers Neural Text-to-Speech (NTTS) voices, delivering advanced improvements in speech quality through a new machine learning approach
- Neural TTS technology also supports a Newscaster reading style that is tailored to news narration use cases

Amazon Comprehend

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Amazon Comprehend

Discover insights and relationships in text

- A fully managed and continuously trained service that discovers insights and relationships in text
- Uses machine learning to help uncover the insights and relationships in unstructured data
- Identifies the language of the text; extracts key phrases, places, people, brands, or events
- Understands how positive or negative the text is; analyzes text using tokenization and parts of speech
- Automatically organizes a collection of text files by topic

Amazon Transcribe

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Amazon Transcribe

Automatic speech recognition (ASR) service to add speech-to-text capability

- Uses advanced machine learning technologies to recognize speech in audio files and transcribe them into text
- Identify the individual speakers in an audio clip, a technique known as diarization or speaker identification
- Support channel identification, returns two or more transcriptions
- Transcribe streaming audio in real-time, send an audio stream and receive a stream of text in real time
- Create a custom vocabulary to help Amazon Transcribe recognize words that are specific to your use case

Amazon Lex

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Amazon Lex

A service for building conversational interfaces using voice and text

- Text and speech language understanding: powered by the same technology as Alexa
- Build once and deploy to multiple platforms
- Designed for builders: efficient and intuitive tools to build conversations; scales automatically
- Enterprise Ready: connect to enterprise systems via SaaS connectors Versioning and alias support
- Continuous Learning: monitor and improve your bot

Let’s start coding!

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Workshop content is here

http://www.awslab.io/win305/

Thank you!

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