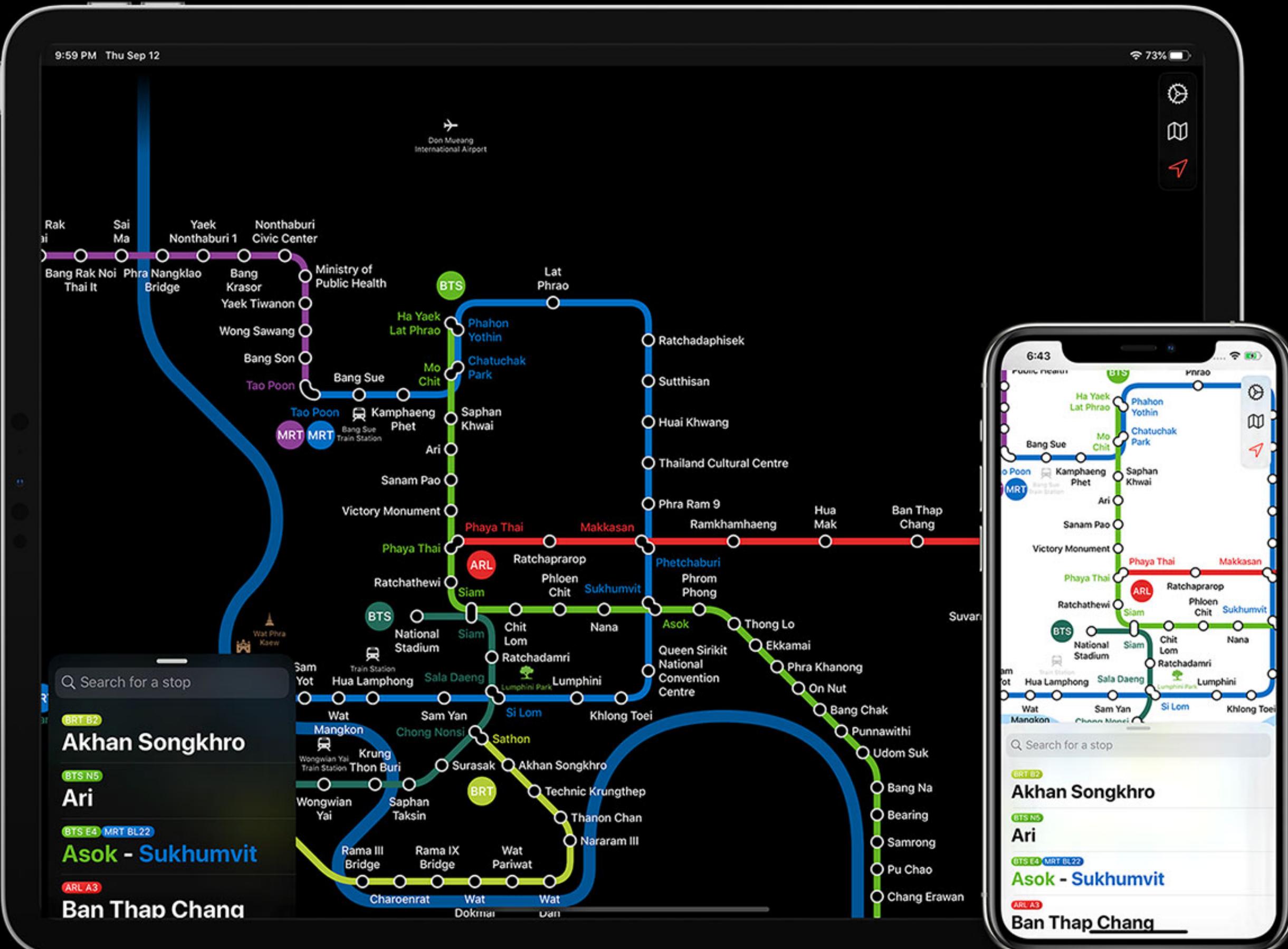


THE STATE OF MACHINE LEARNING IN IOS 13

FEDERICO ZANETELLO

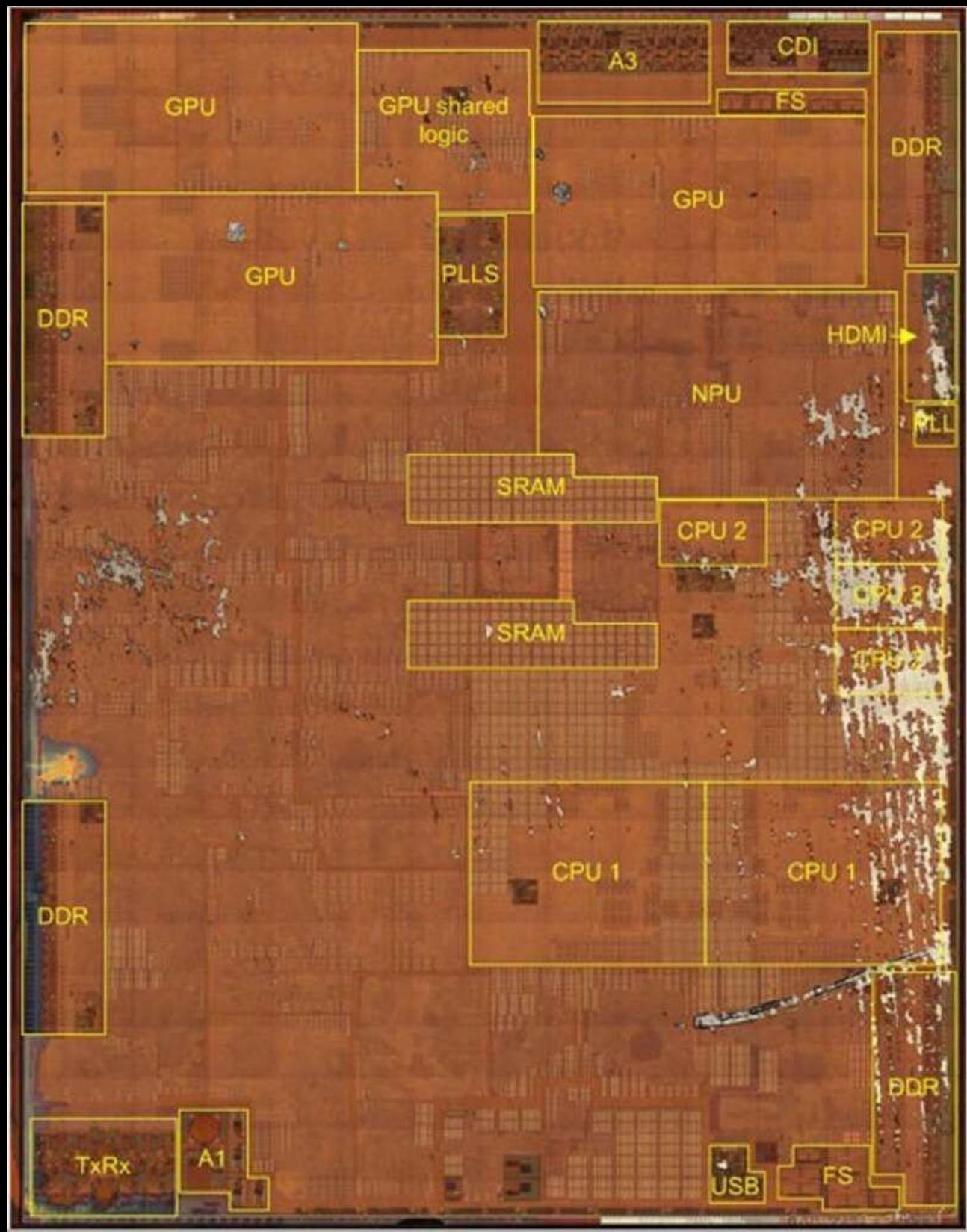
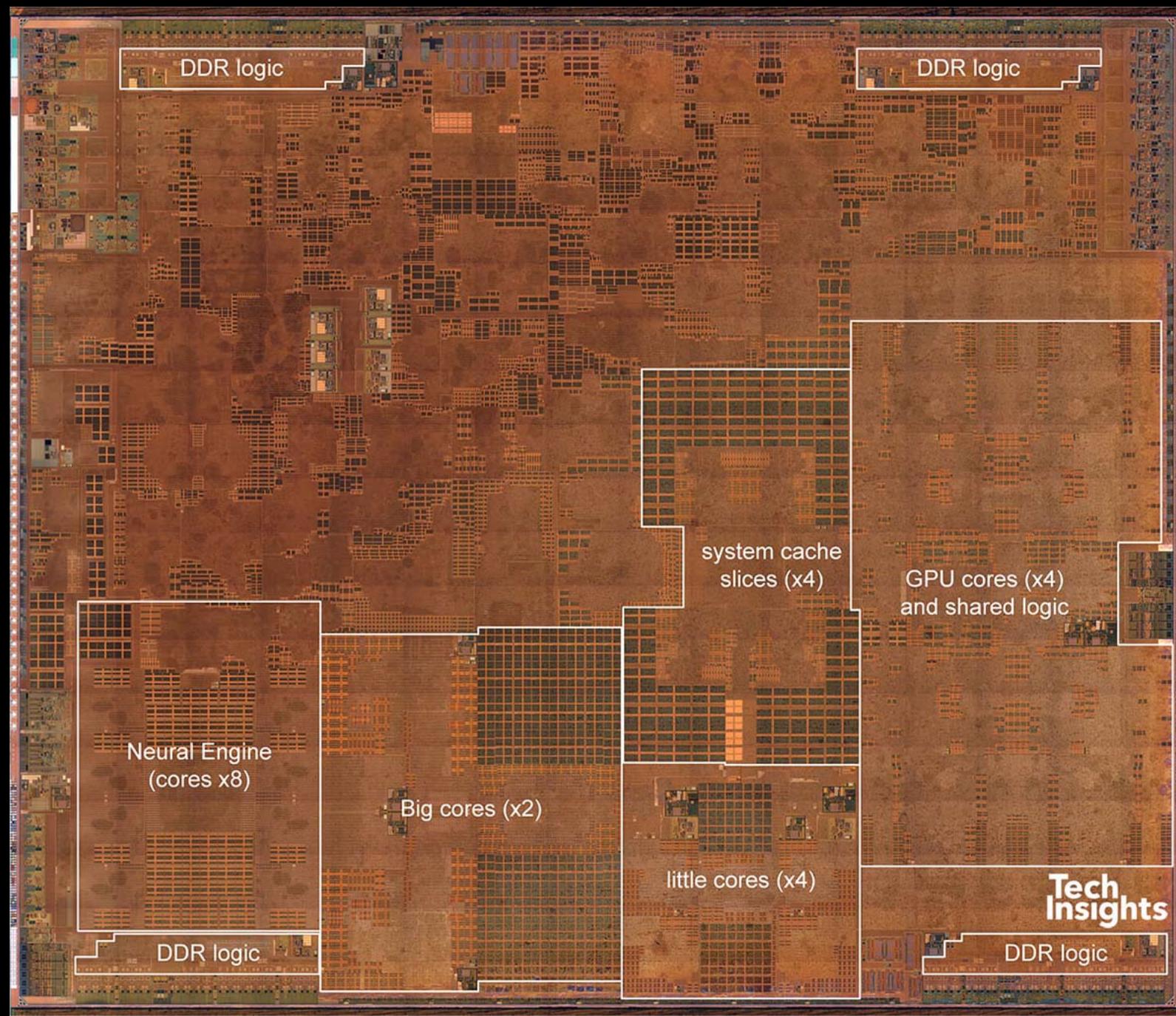
★★★★★ fivestars.blog • @zntfdr



Download on the
App Store

WHY CARE?





WWDC 2017

4 VIDEOS, ~150 MINUTES

WWDC 2018

7 VIDEOS, ~250 MINUTES

WWDC 2019

15 VIDEOS, ~400 MINUTES



Cancel Undo Revert Shiori Done

Color Balance ML View Color Wheels Master 3-Way Color

Selective Color ML

Hue: 21% | Saturation: 34% | Brightness: 0%

Reset Adjustments

BW CN CF MF

001 002 003 004 001 002 003 004 005 001 002 003 004 005 001 002 003 004 005 006

This image shows a mobile application interface for photo editing. The main view displays a close-up portrait of a young woman with long dark hair, looking directly at the camera. The background is a warm orange color. On the right side of the screen, there is a detailed color correction interface. It includes a histogram at the top, followed by 'Color Balance' and 'Selective Color' sections. The 'Selective Color' section shows sliders for Hue (set to 21%), Saturation (set to 34%), and Brightness (set to 0%). Below these are tabs for 'Master' and '3-Way Color'. At the bottom of the edit screen is a preview strip showing five versions of the photo labeled BW, CN, CF, and MF, each with five numbered thumbnails below it (001 to 005 or 006). The top bar of the app includes standard controls: Cancel, Undo, Revert, the name 'Shiori', and Done.



HOME PERIOD
FOULS PLAYER FOUL FOULS
SCORE MATCH SCORE

00:28



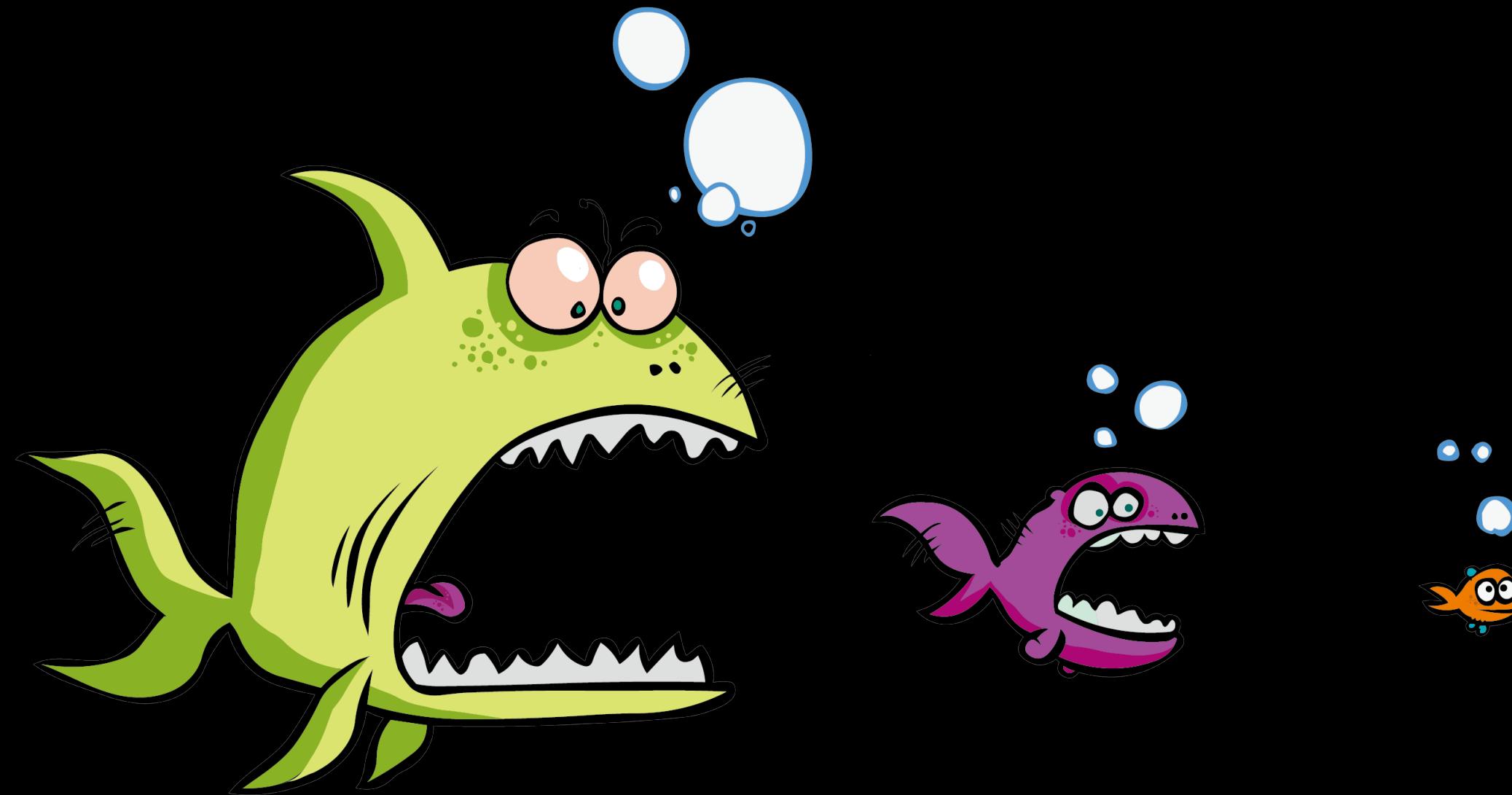
46°
RELEASE ANGLE



STOP



AI → SOFTWARE → WORLD





VISION

Face detection

Face features detection

Text, bar code, shape detection

Object tracking

Image classification

Object detection

Attention image saliency

Objectness image saliency

Image similarity

NATURAL LANGUAGE

Sentiment Analysis
Word Tagging
Word Embedding
Text Classification
Translation

SPEECH & SOUND ANALYSIS

Speech recognition (live or prerecorded)

Transcriptions

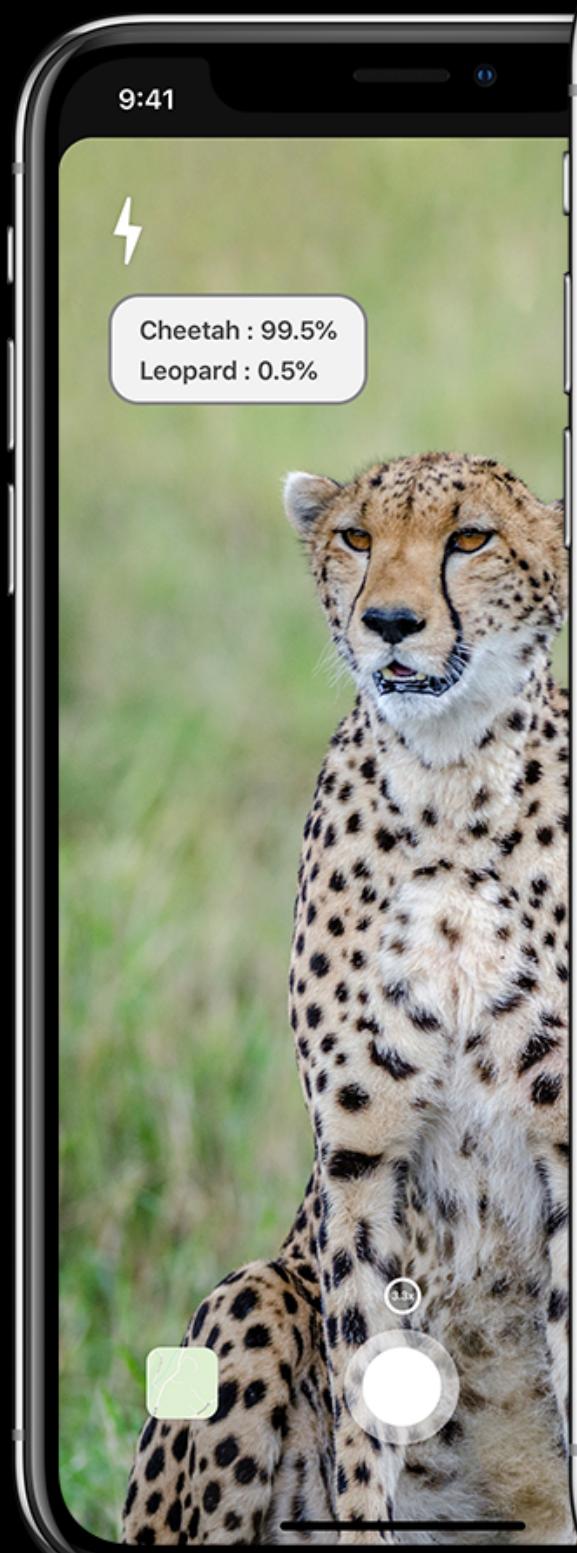
Alternative interpretations

Over 50 languages supported

Jitter, shimmer analysis

Pitch, voicing analysis

Sound classification



Translate

9:41

Audio Text Document

My Language: English Detect Lang: Spanish

Detect Language:

¿Dónde está la parada de autobús más cerca?

My Language: Where's the nearest bus stop

0.0x

0.0x

0.0x

0.0x



rowing long quivering shade draught of the open door. me in with his right hand saying in excellent English, tion.

use! Enter freely and of your e no motion of stepping to a statue, as though his ges fixed him into stone. The had stepped over the thresh forward, and holding out with a strength which made ch was not lessened by the as ice, more like Again he said,

use! Enter freely. Go safely, the happiness you bring!" Ishaké was so much akin to l in the driver, whose face I moment I doubted if it were whom I was speaking. So to gatively, "Count Dracula?"

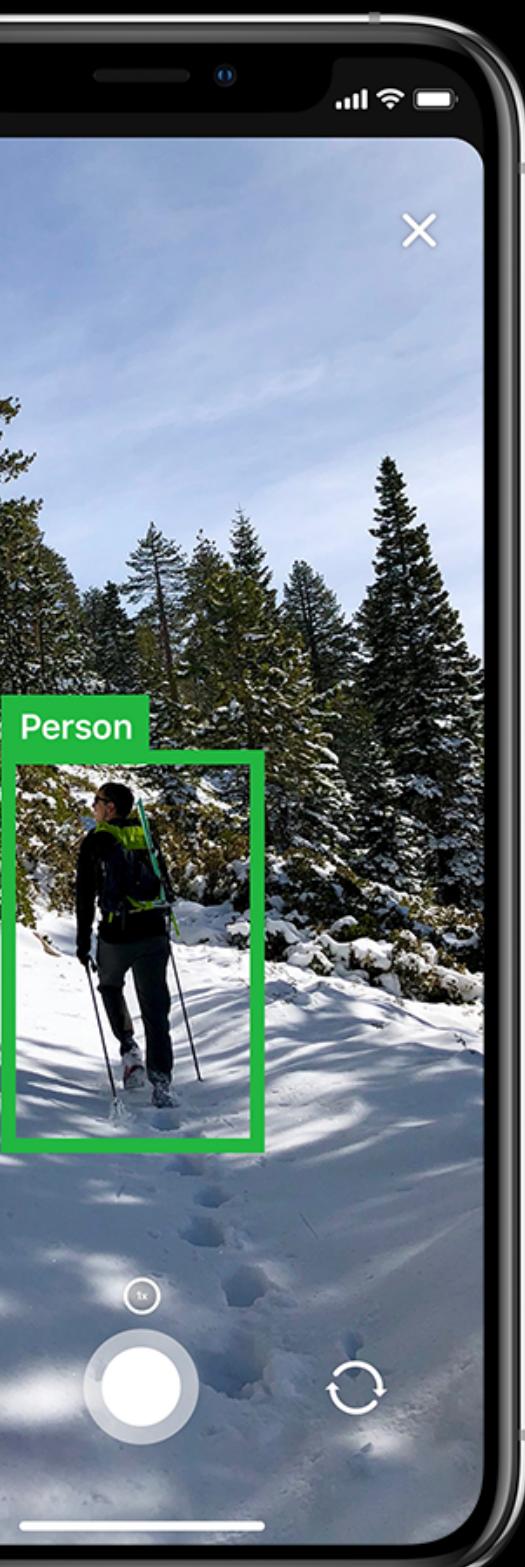
tly way as he replied, "I am welcome, Mr. Harker, to my air is chill, and you must he was speaking, he put the

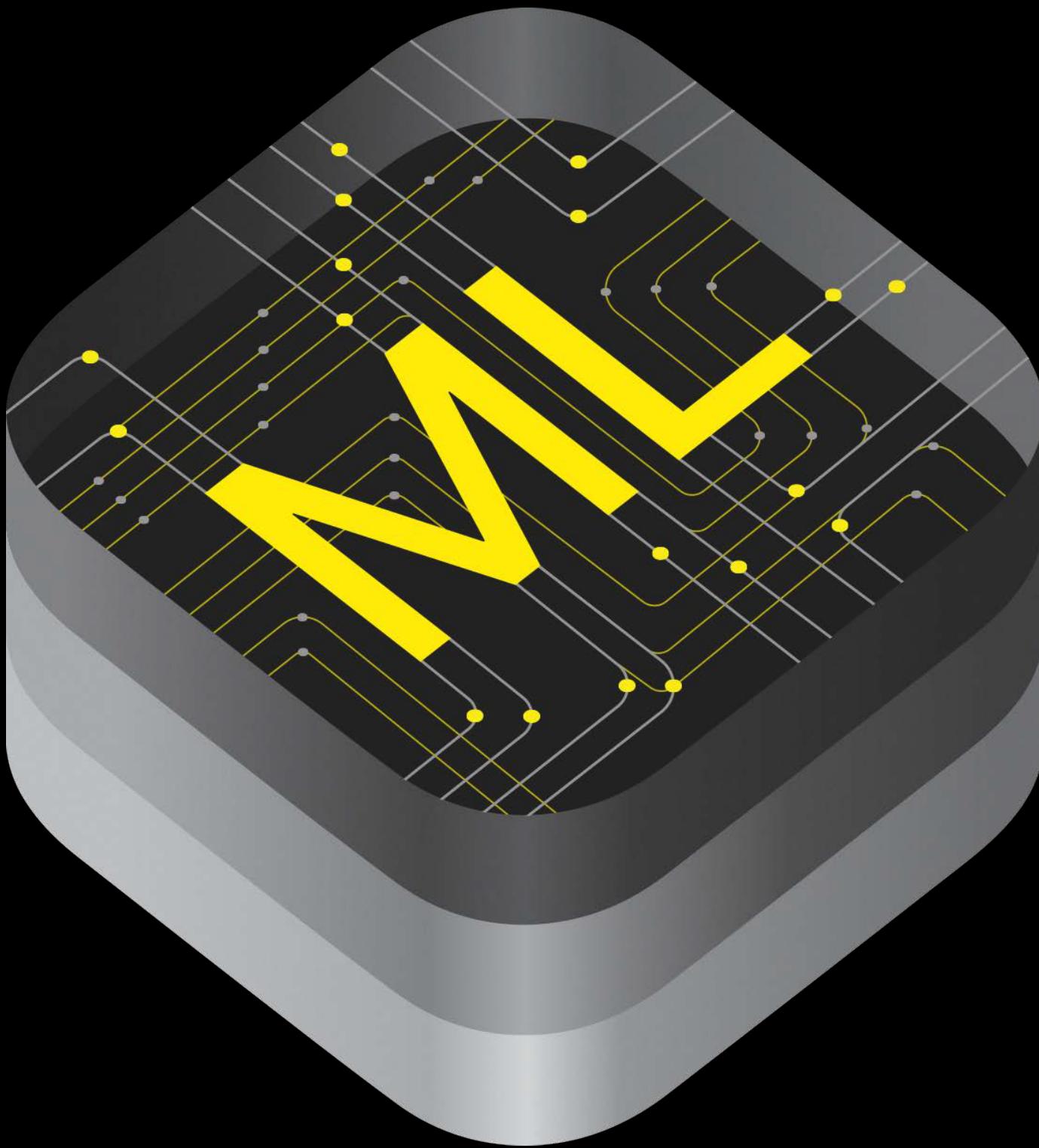
0.0x

0.0x

0.0x

0.0x

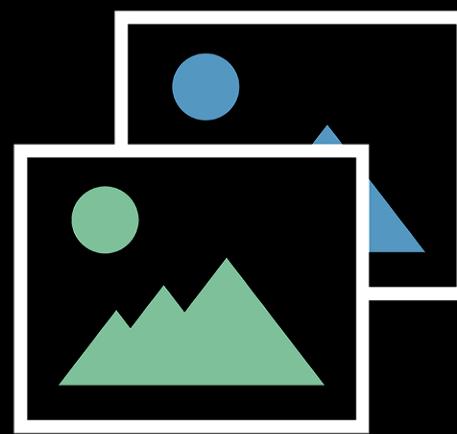






MLMODEL

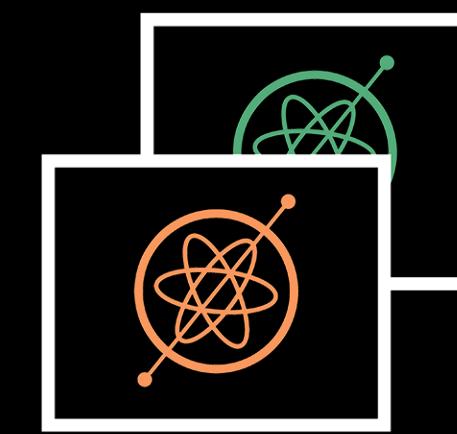




Image



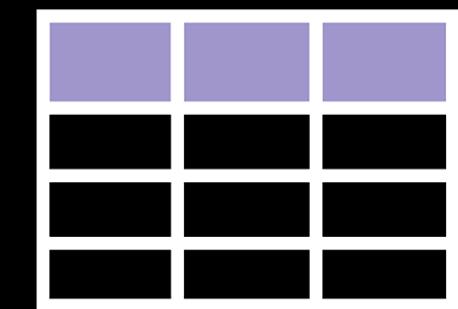
Sound



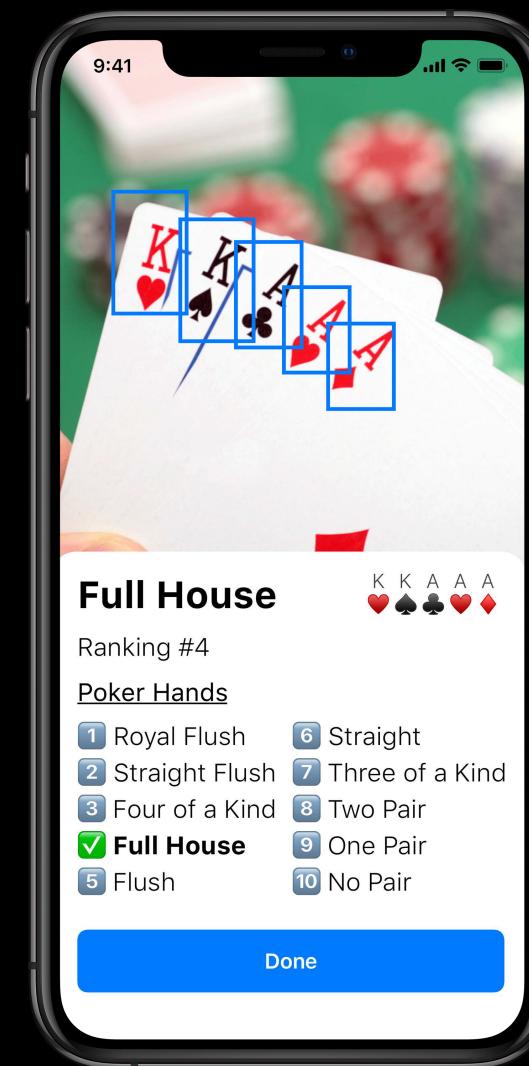
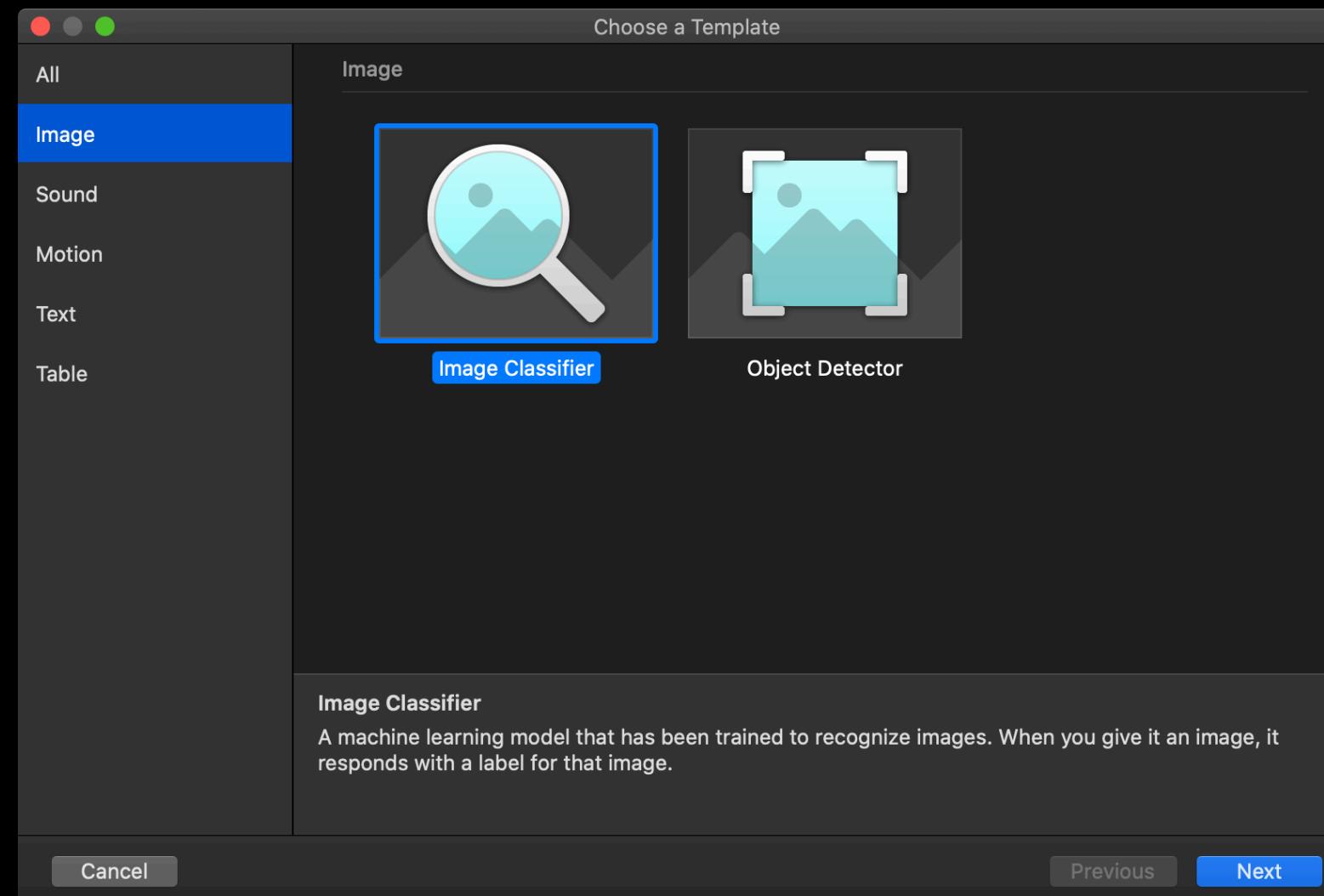
Activity

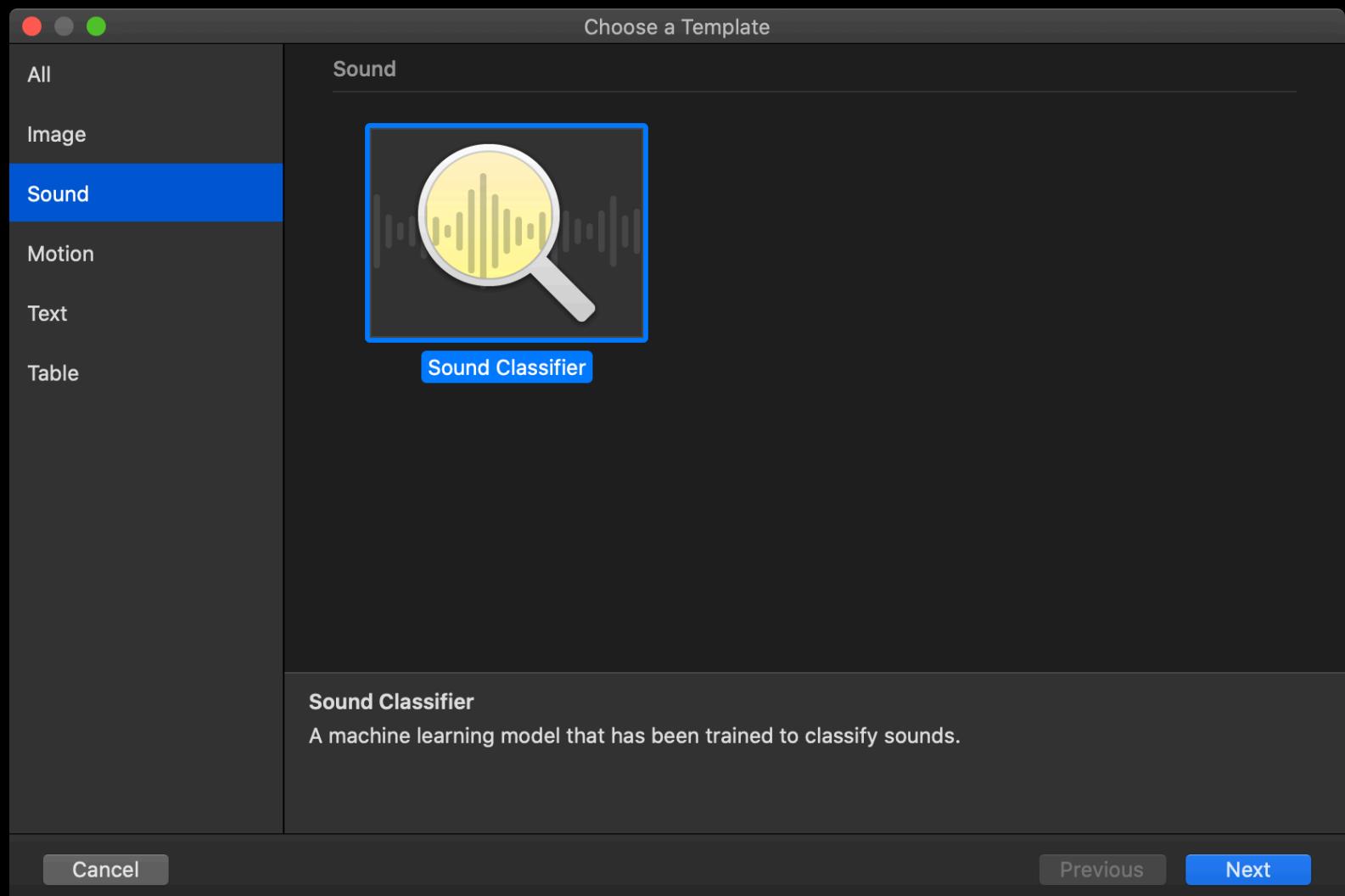


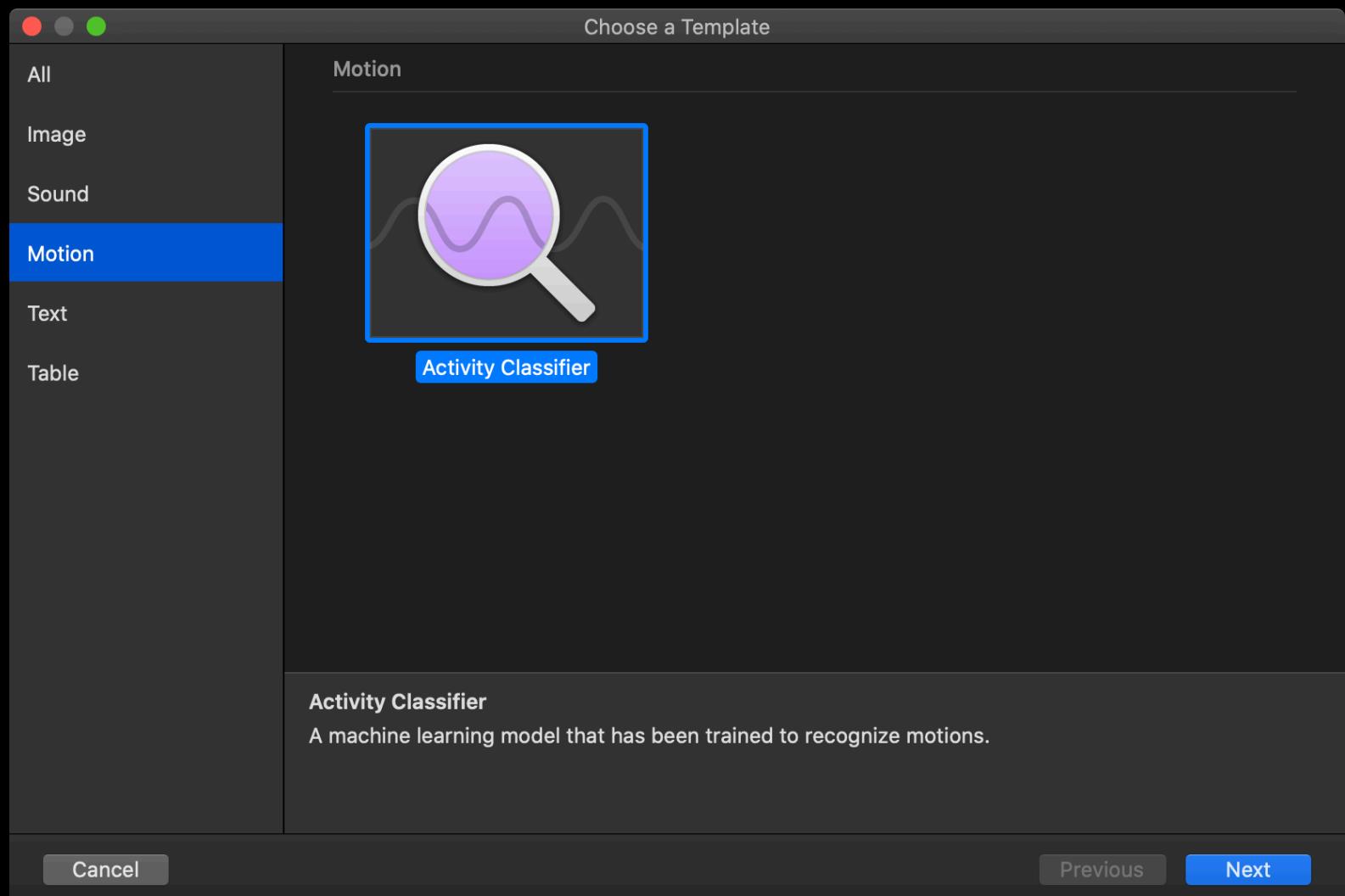
Text

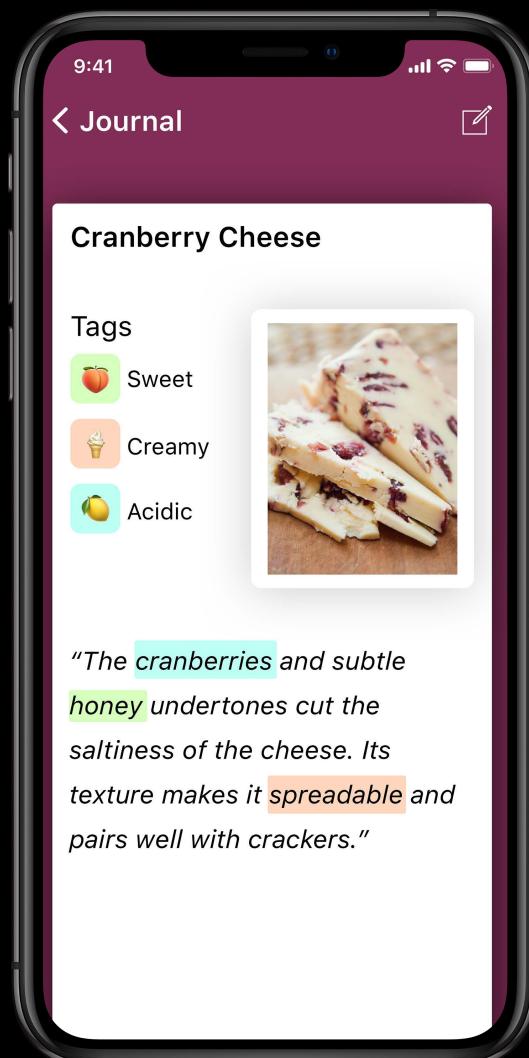
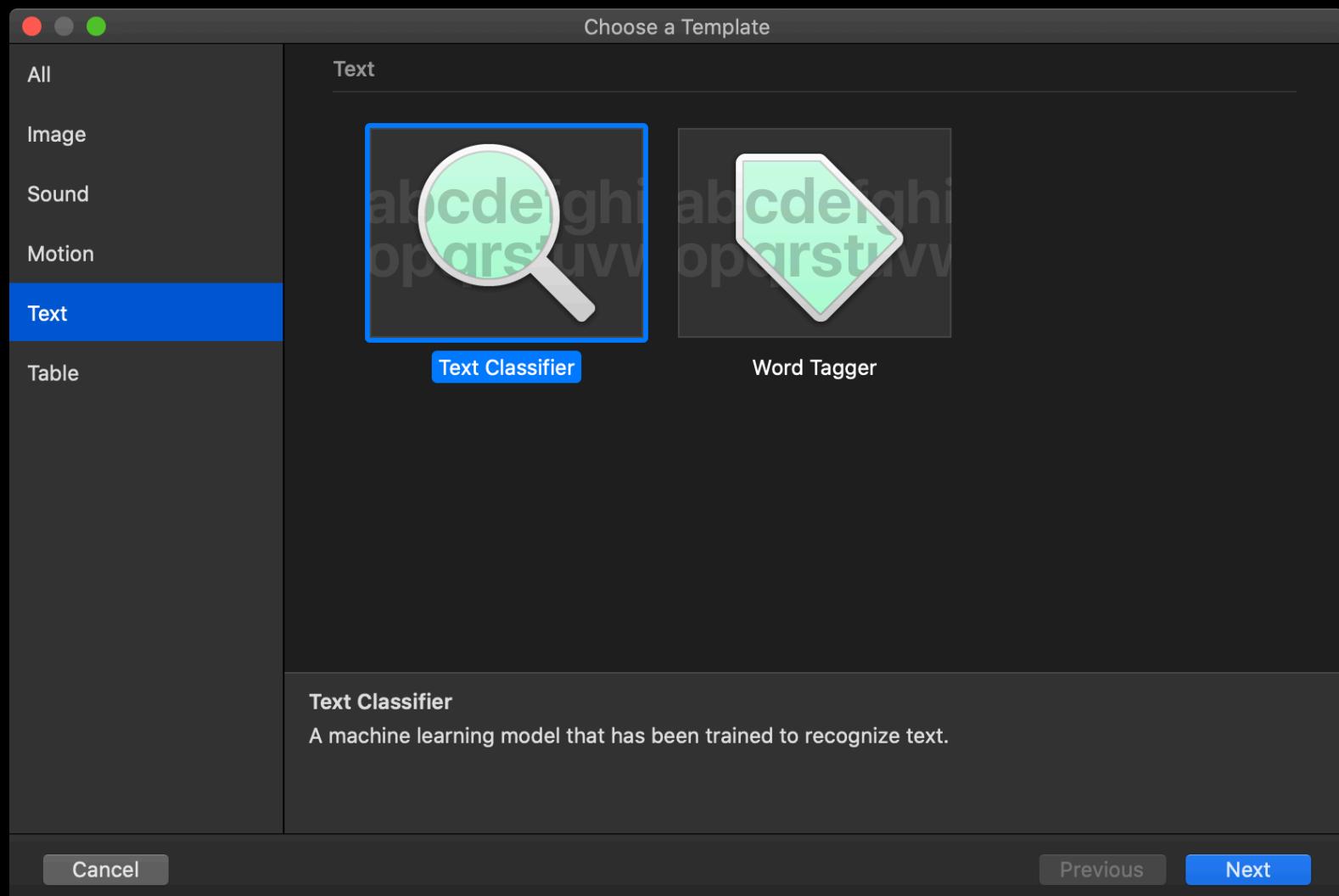


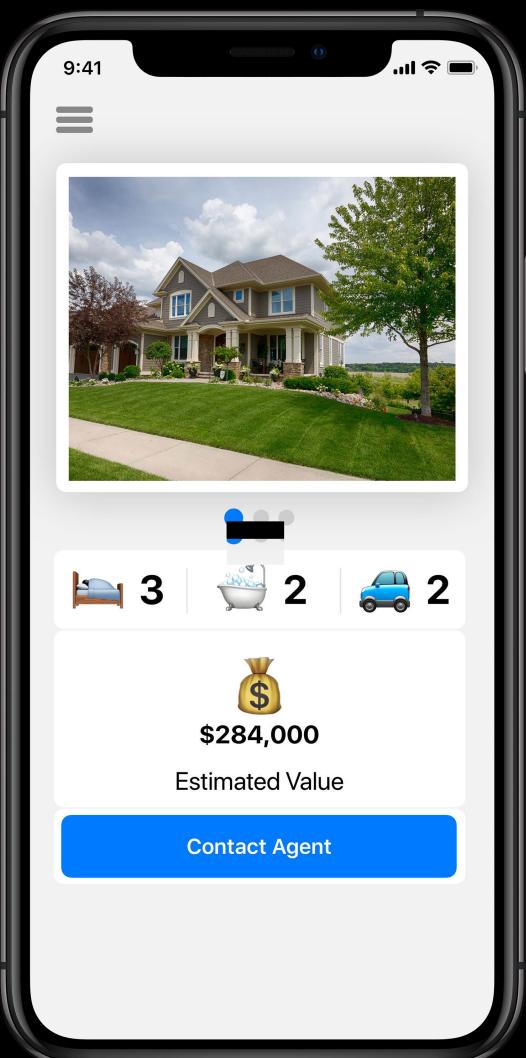
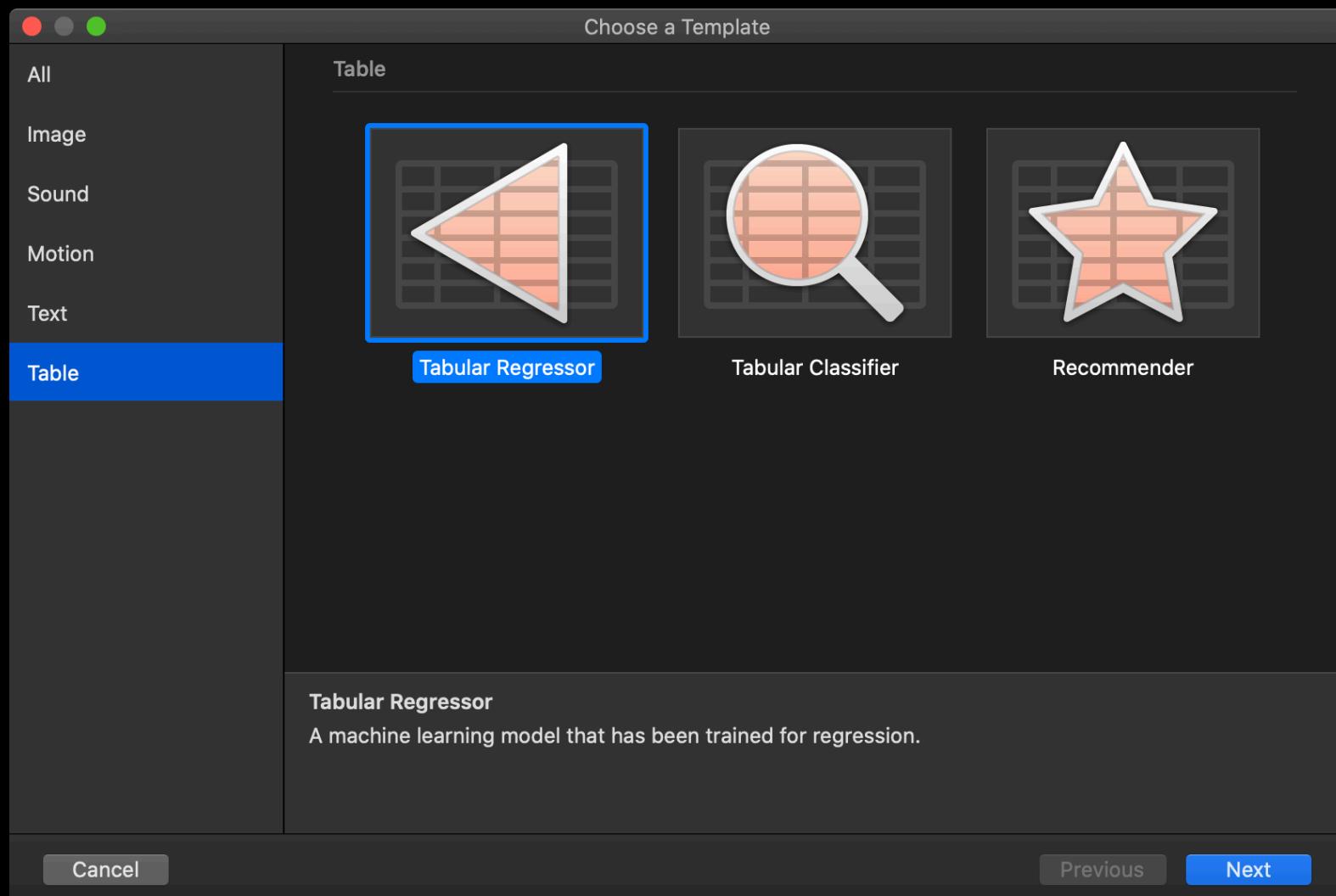
Tabular











ON-DEVICE

TRAINING

EXAMPLES?

FaceID

iOS Keyboard & QuickType

Photos.app

Hey Siri & Siri

Watch

Maps.app

Store.app

Safari.app

ARKit



CREDITS & RESOURCES

developer.apple.com/machine-learning

developer.apple.com/documentation/createml

github.com/apple/turicreate

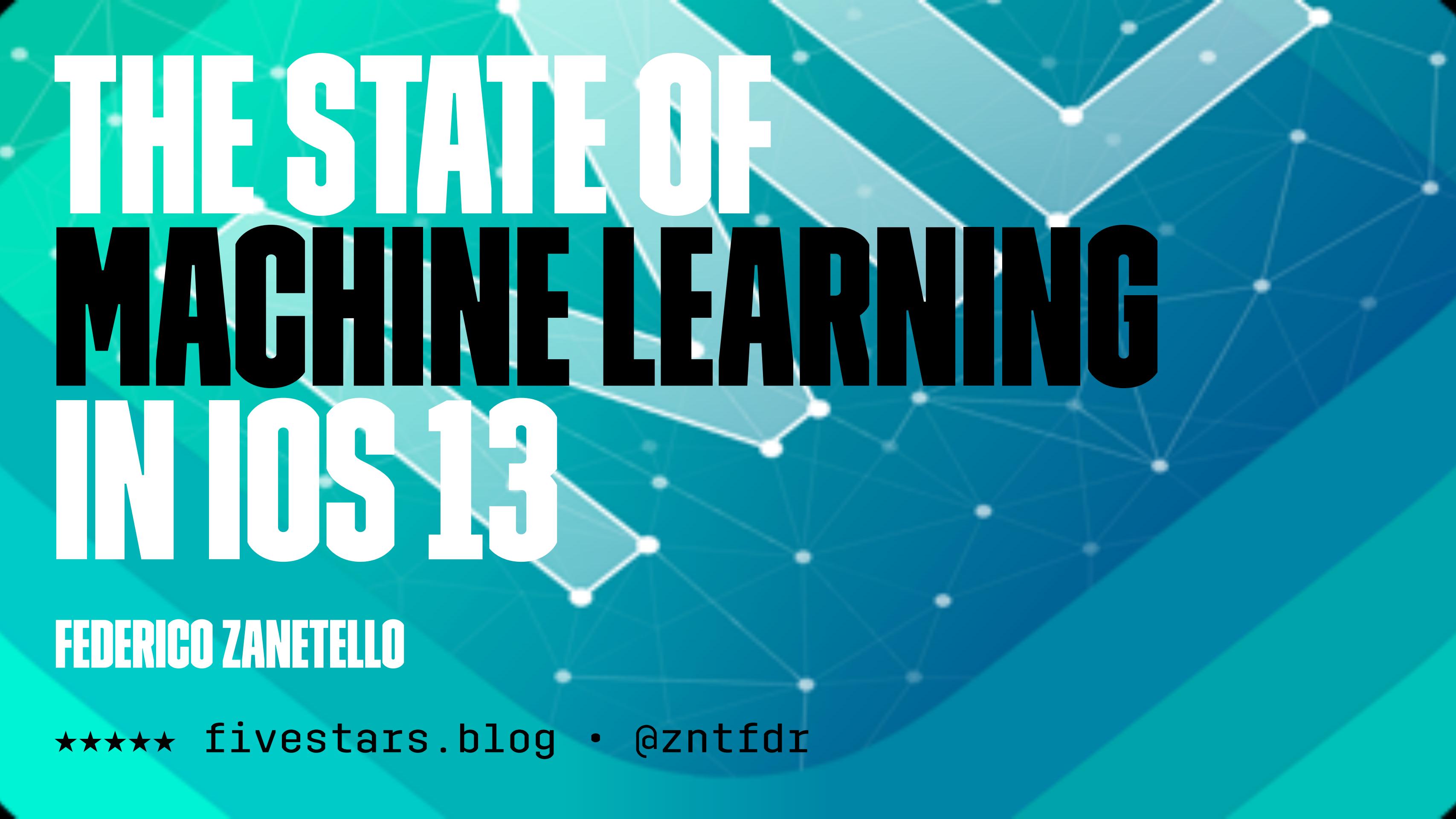
github.com/apple/coremltools

developer.apple.com/design/human-interface-guidelines/machine-learning

techinsights.com

developer.apple.com/videos/all-videos

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