QUALCOMM®

AI

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@qualcomm

AI is changing everything

Finance

Healthcare

Entertainment

Transportation

Insurance

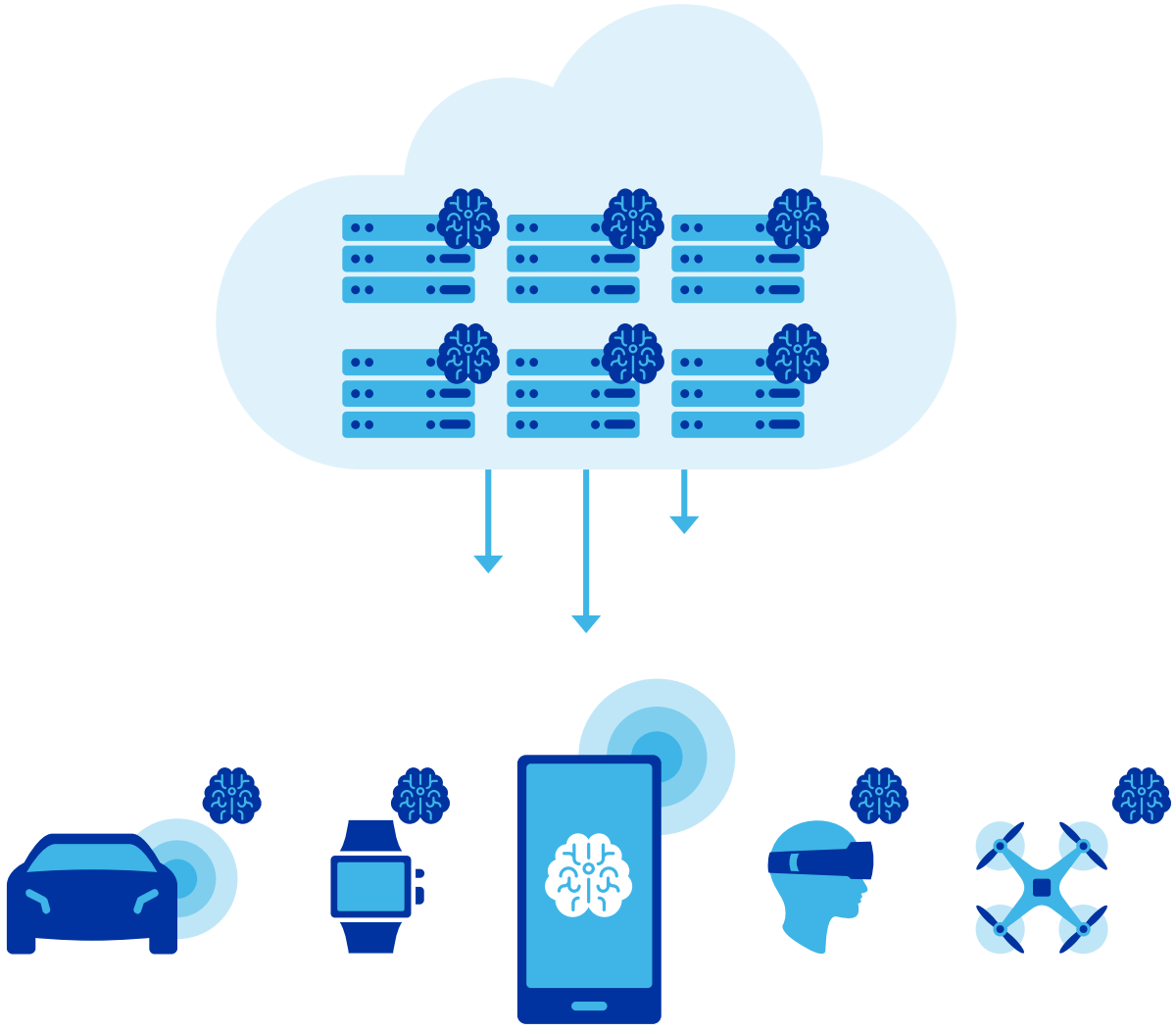
Mobile Communications

Intelligence moving from the cloud to the edge

Low latency

Privacy

Reliability



Richer,
more personalized,
more exciting devices

eXtended Reality

Immersive Gaming

Intuitive Audio

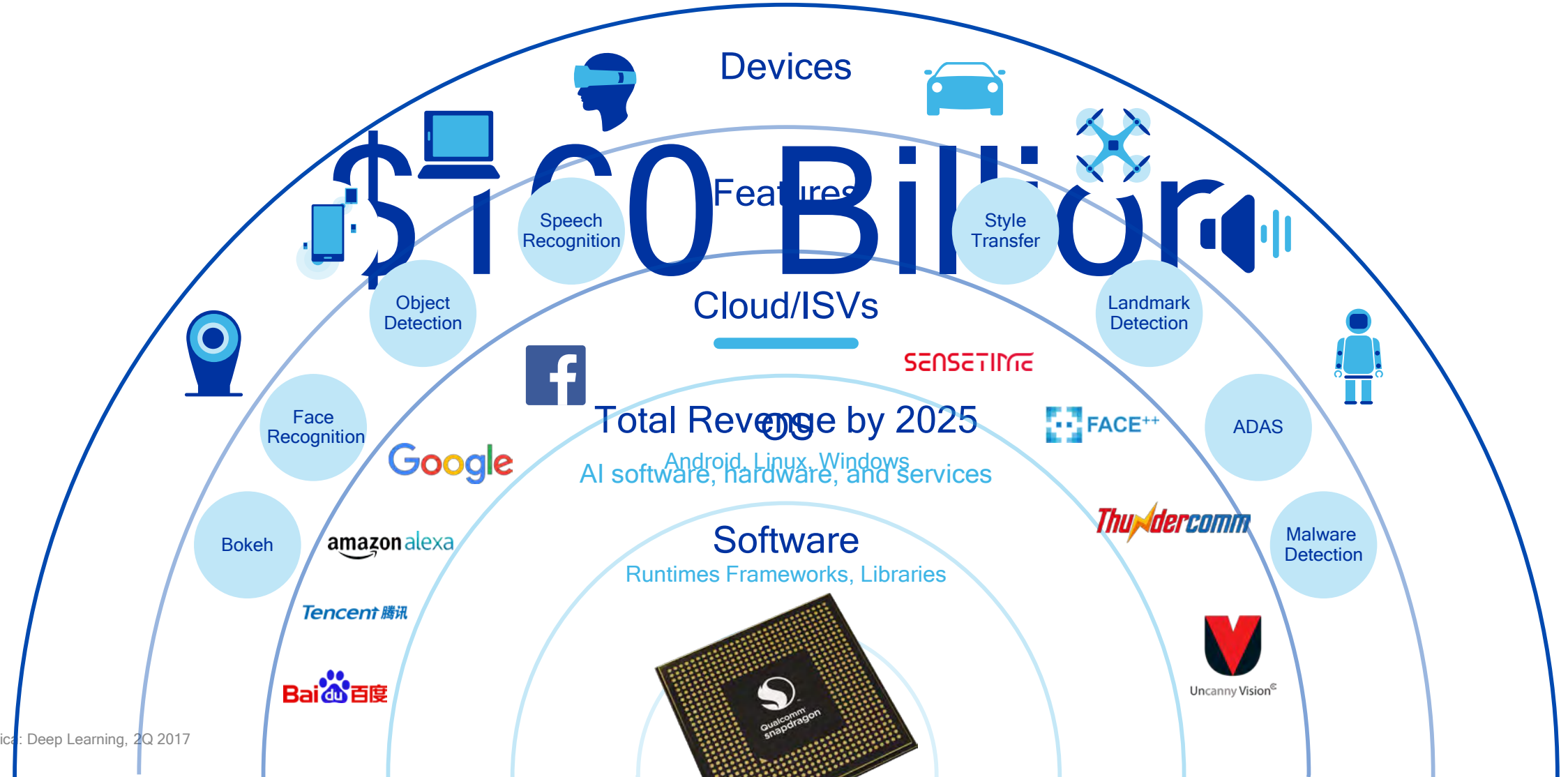
Health and Fitness

Mobile - THE most pervasive AI platform

>8.6 Billion

Cumulative smartphone unit shipments forecast between 2017-2021

Source: Gartner Mar. ‘17



Tractica: Deep Learning, 2Q 2017

How do we make this happen?

Snapdragon 845 3rd generation mobile AI platform

Our smartest system for intelligent mobility

Snapdragon 845 AI

Core Optimizations

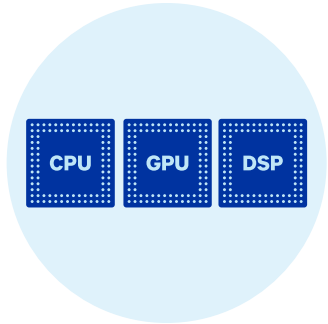
Developer Choice

3X AI performance of 835

Snapdragon Neural Processing Engine

Software accelerated runtime for the execution of deep neural networks on device

Available at:
developer.qualcomm.com

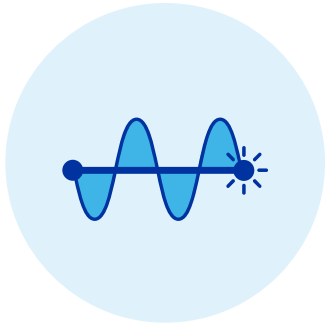


Efficient execution on Snapdragon

Model framework/ network support

Developer Tools

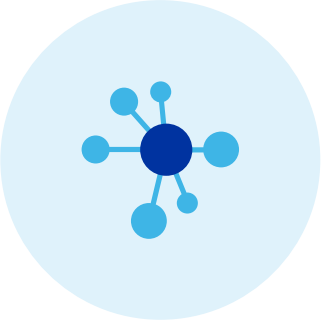
What's new?



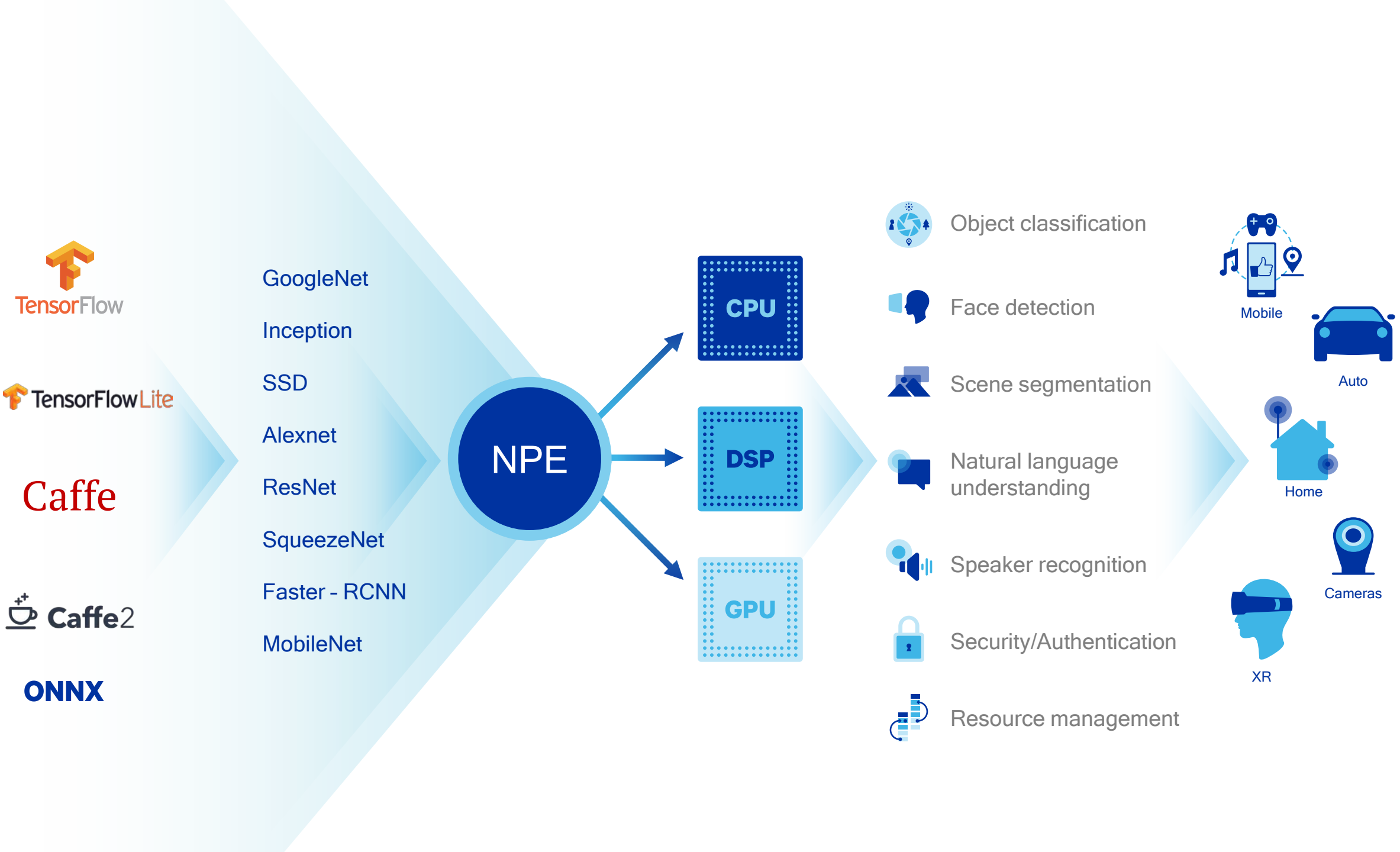
Fixed and floating point optimizations

Supports TensorFlowLite

Supports Caffe2, CNTK, MxNet



Optimizations for new networks


TensorFlow
TensorFlow Lite
Caffe
Caffe2
ONNX
GoogleNet
Inception
SSD
Alexnet
ResNet
SqueezeNet
Faster - RCNN
MobileNet
NPE
CPU
DSP
GPU
Object classification
Face detection
Scene segmentation
Natural language understanding
Speaker recognition
Security/Authentication
Resource management
Mobile
Auto
Home
Cameras
XR

History of deep AI collaboration

Google: TensorFlow/Android NN

Facebook: Caffe 2/Style Transfer

Motorola: Landmark Detection

OPPO: Face Unlock & Camera

Snapdragon AI Developer Ecosystem

…and more on the way!

Photography: better and easier

Video Style Transfer

Deep Portrait/Single Camera Bokeh

Face Authentication and Unlock

A more personal assistant

Accurate Detection

Faster Controls

More Natural Interaction

AI highlights

3rd gen mobile AI platform

Platform-wide optimizations

Growing AI ISV ecosystem

More immersive user experiences

Thank you

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