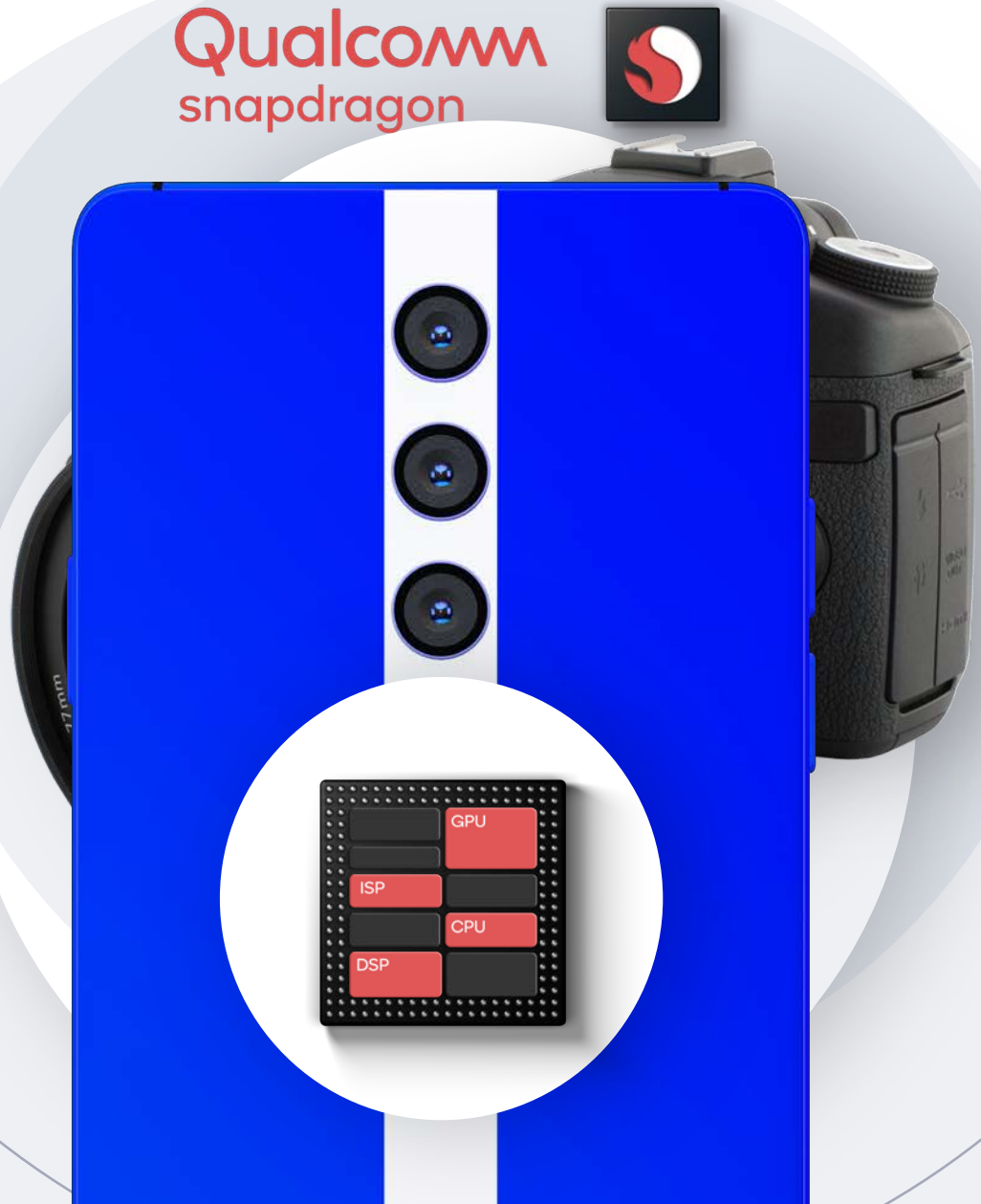
Judd Heape

Senior Director, Product Management
Qualcomm Technologies, Inc.

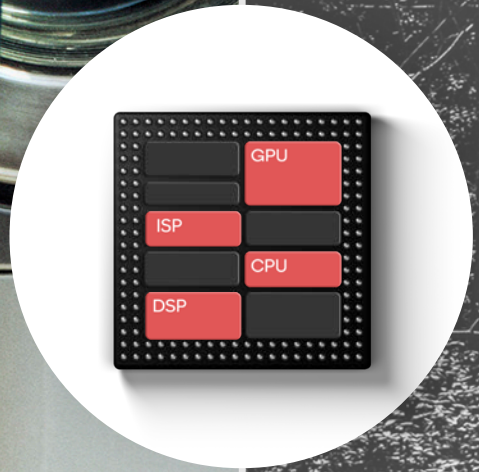


Enabling features never possible in legacy cameras

GPU
ISP
CPU
DSP
Low Light

4K HDR

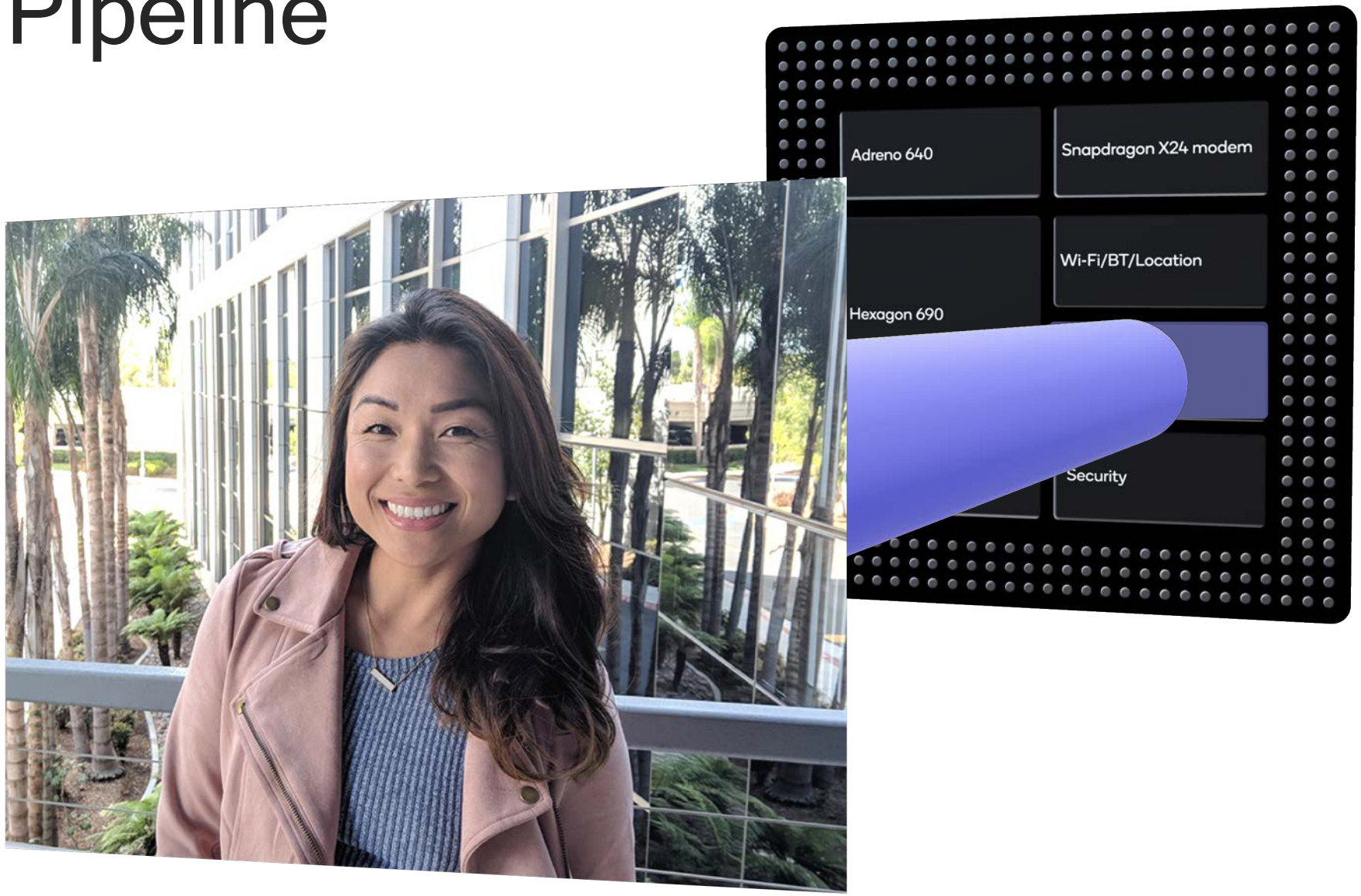
Triple Lens
3x zoom



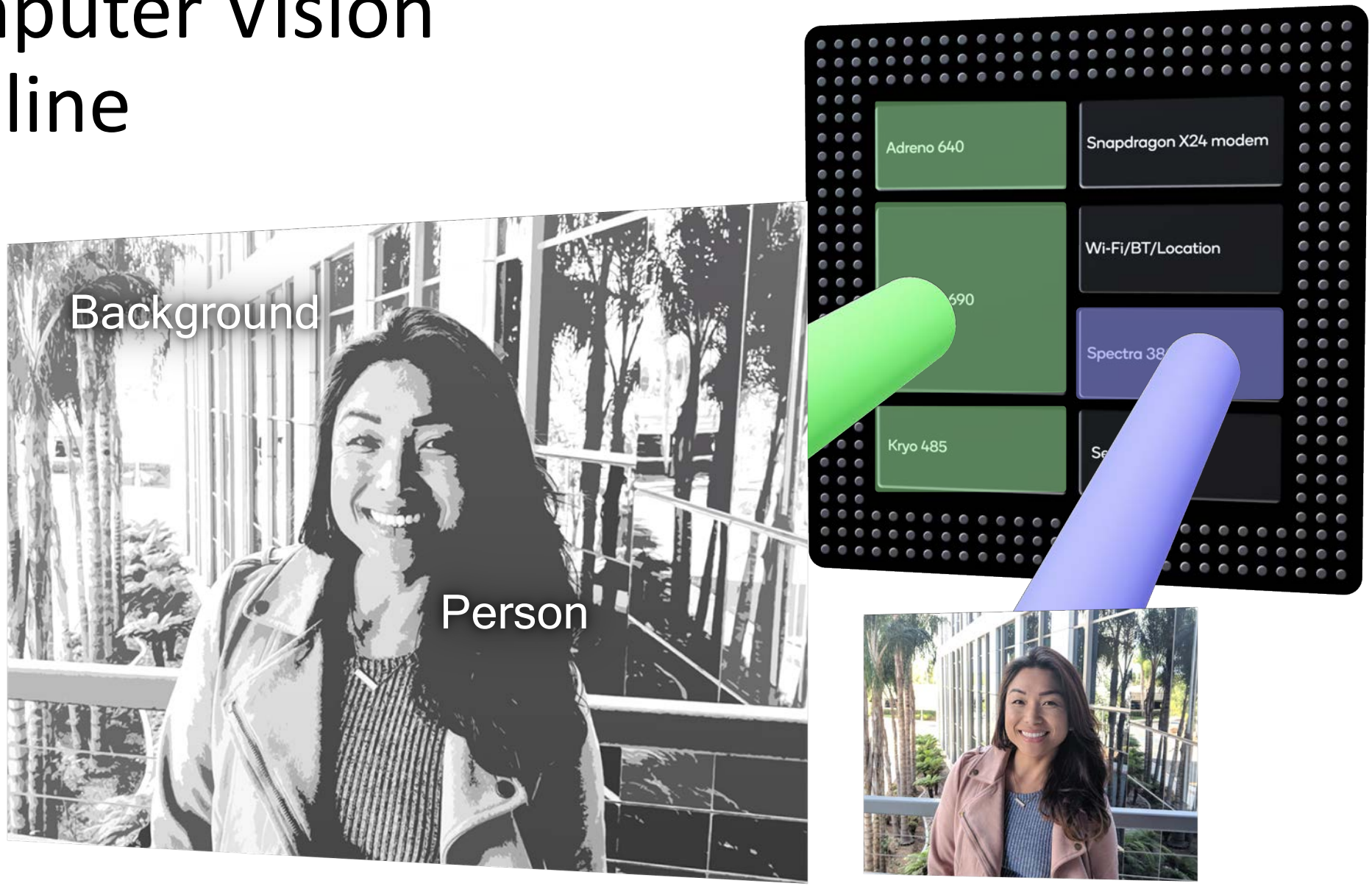
Object classification
and tracking

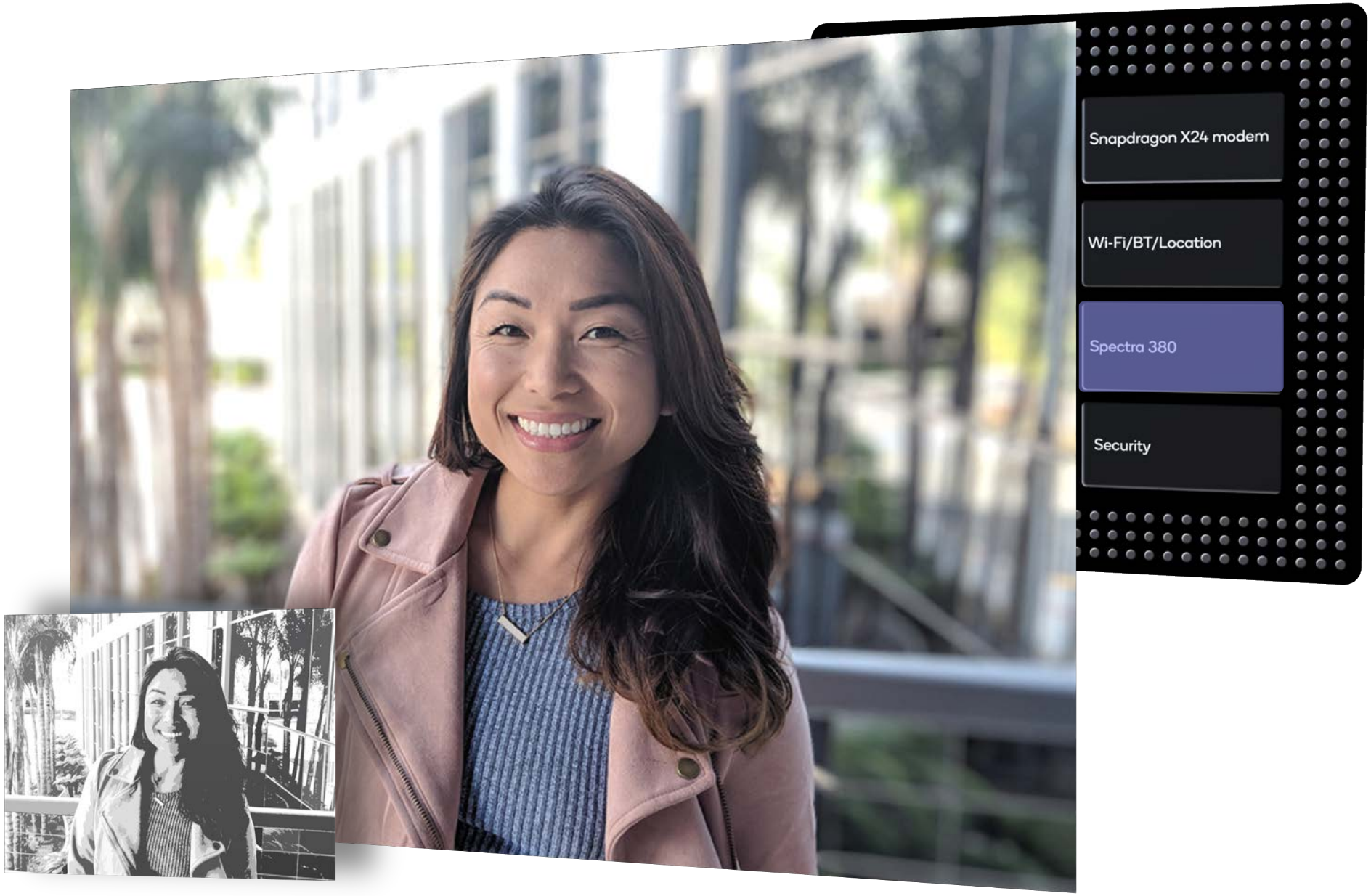
6DoF body tracking
+ Room-Scale

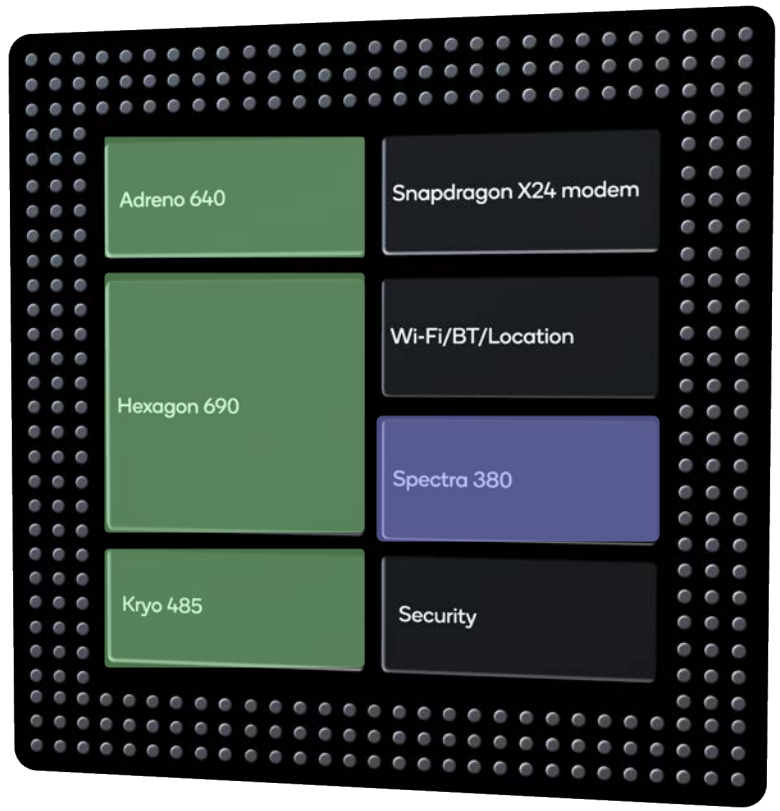
Color Pipeline



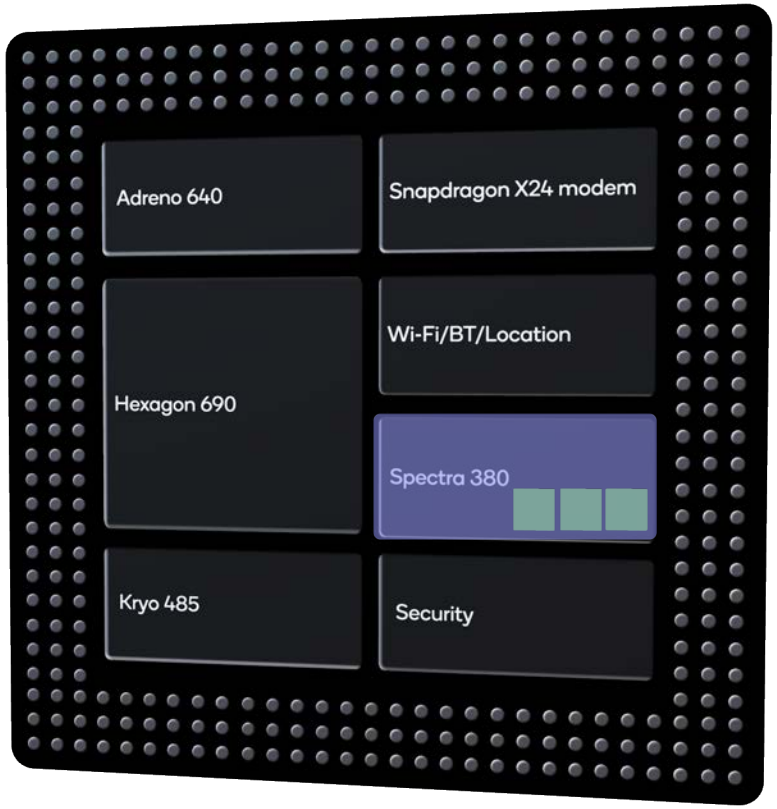
Computer Vision Pipeline




Snapdragon X24 modem
Wi-Fi/BT/Location
Spectra 380
Security


Adreno 640
Snapdragon X24 modem
Hexagon 690
Wi-Fi/BT/Location
Spectra 380
Kryo 485
Security

World's First CV-ISP



Extreme
Speed Boost

Up to 4x
Power Savings

Computer Vision

Multi-object Classification

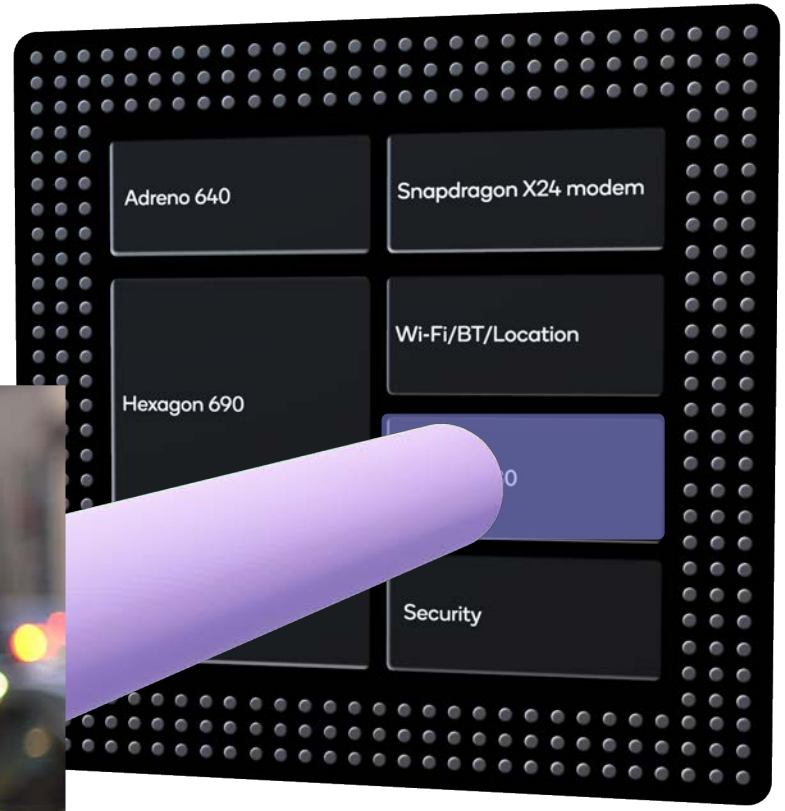
Multi-Object Tracking

Object Segmentation

Depth Sensing at 60fps

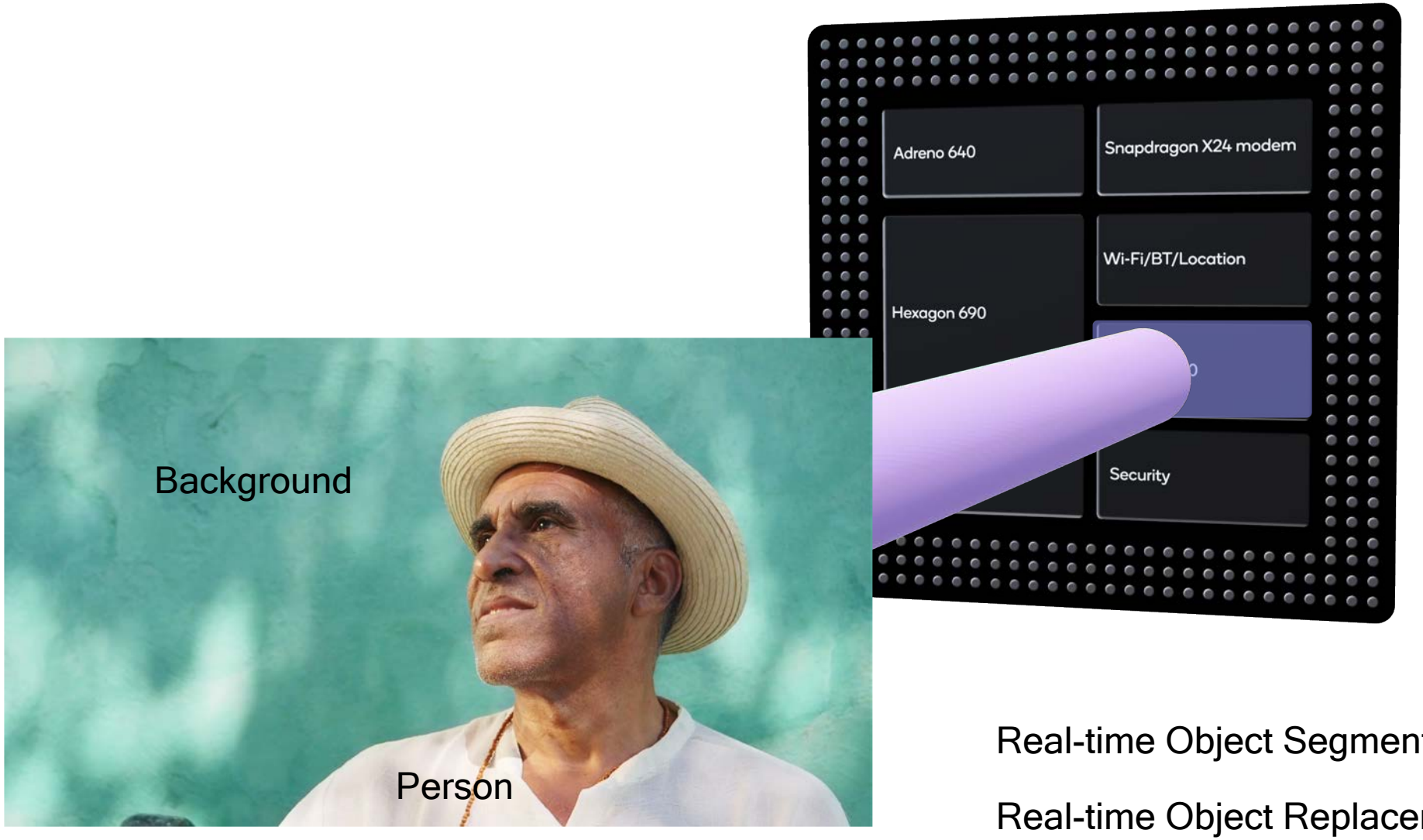
6DoF XR Body Tracking

CV Stabilization



Depth Sensing at 60fps

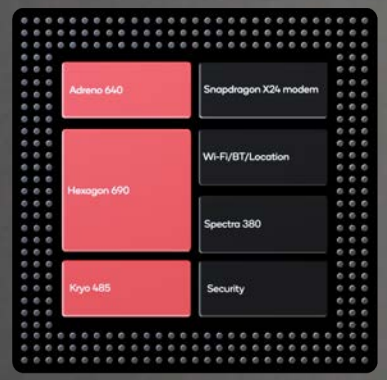
World’s **First** 4K HDR with Portrait Mode



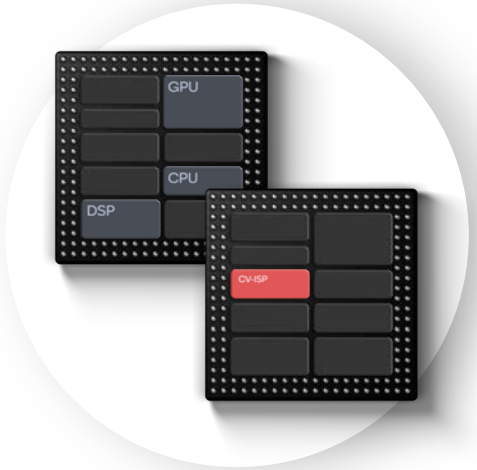
Real-time Object Segmentation

Real-time Object Replacement

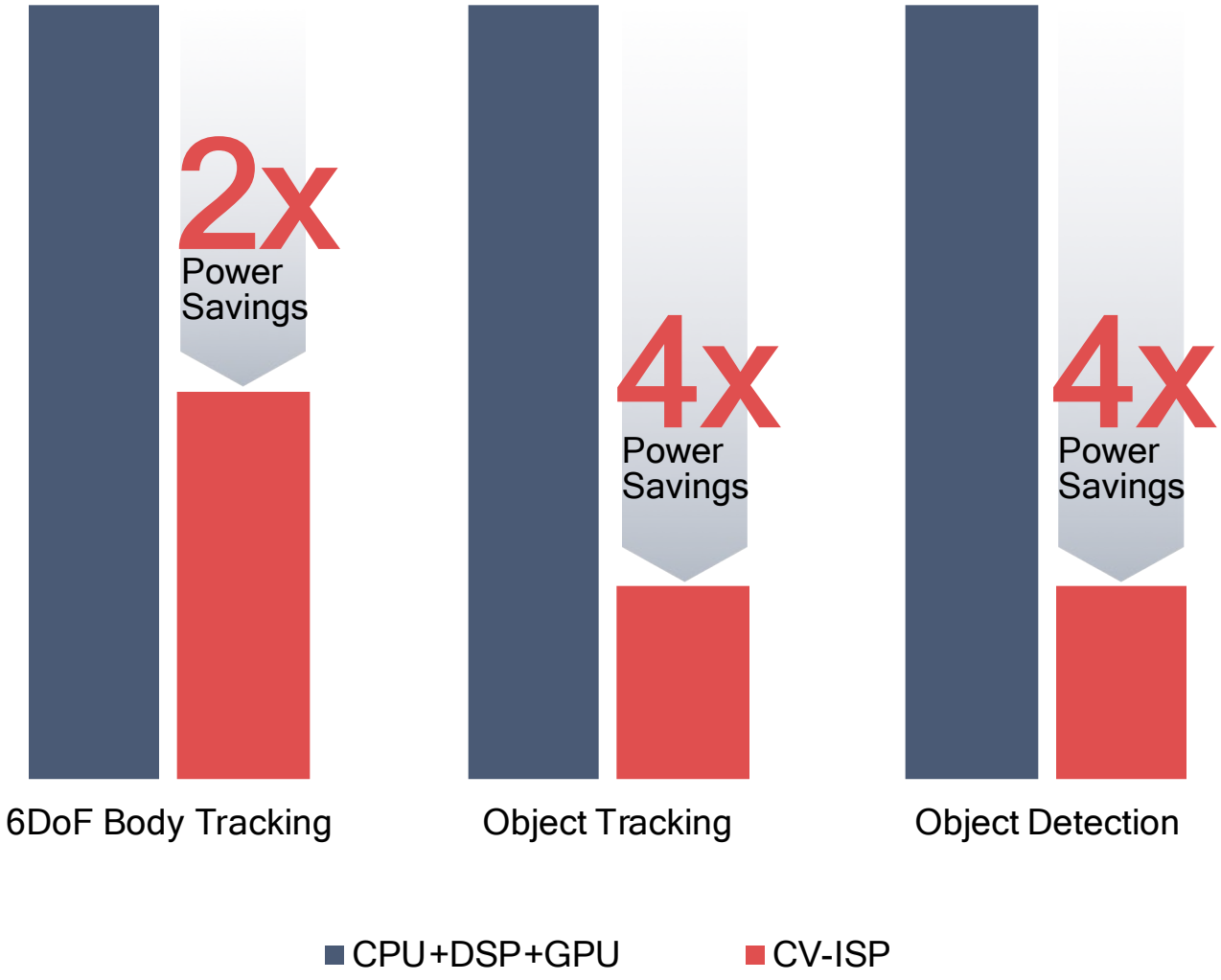
CV-ISP + AI Engine



CV-ISP + AI Engine



Power savings in computer vision



Color

Date and Time

Location

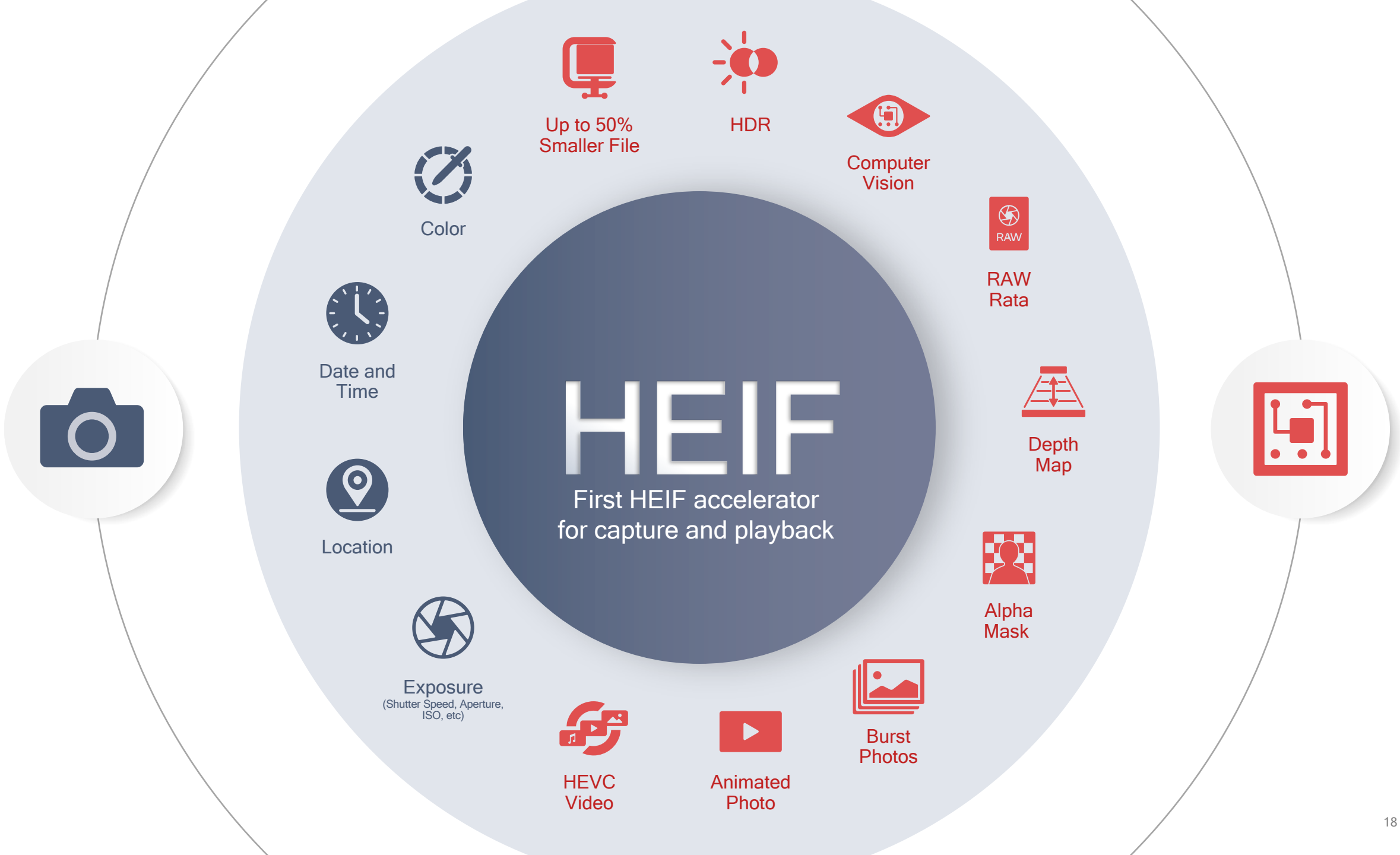
Exposure
(Shutter Speed, Aperture, ISO, etc)

HDR Color

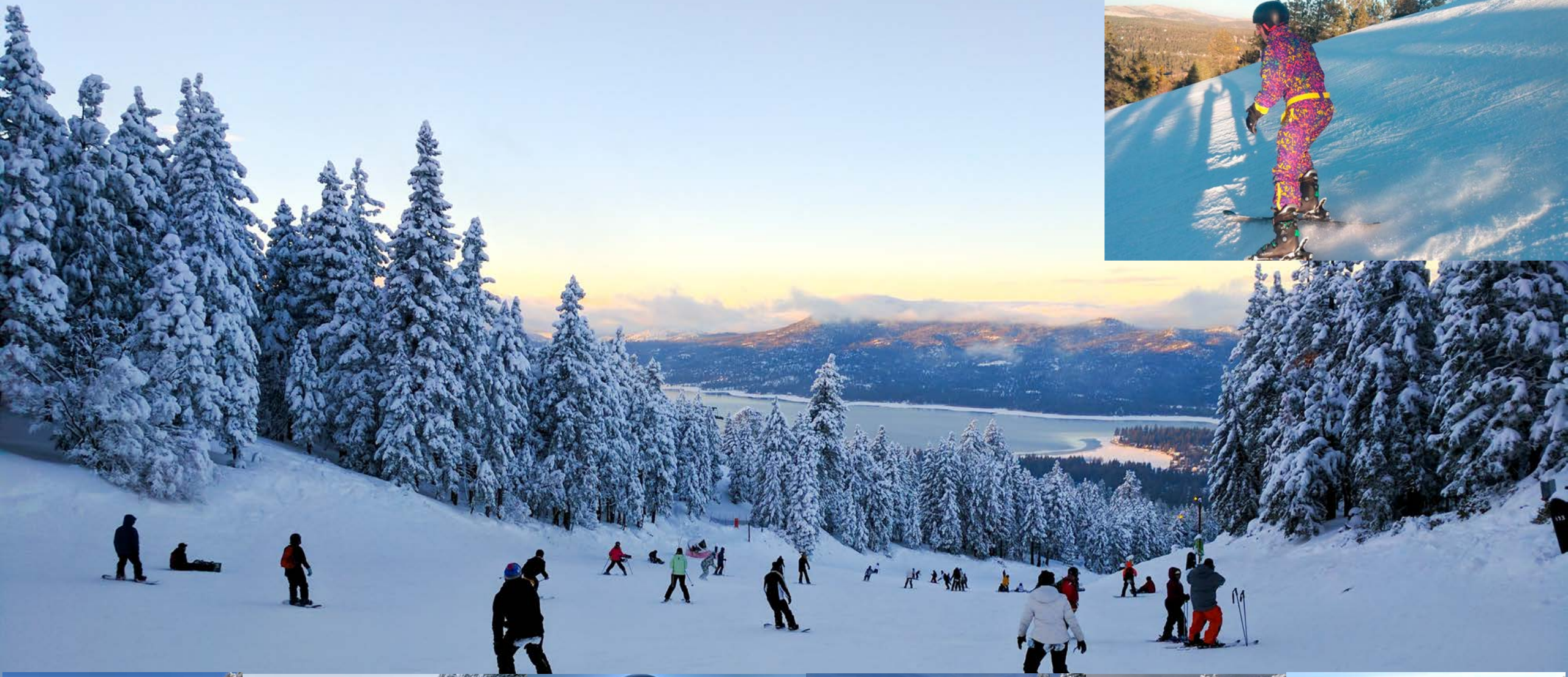
Computer Vision

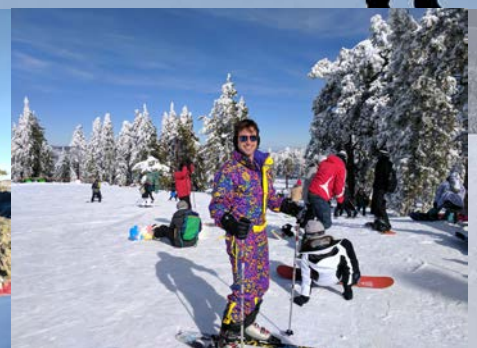
Imagery that Blends Photos and Video

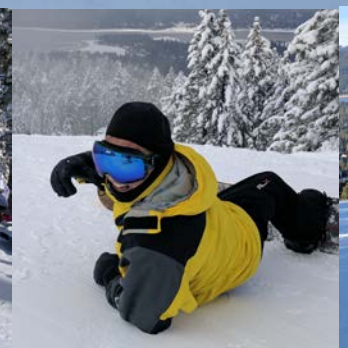
Color
Date and Time
Location
Exposure
(Shutter Speed, Aperture, ISO, etc)
JPEG
HDR Color
Imagery that Blends Photos and Video


Up to 50%
Smaller File
HDR
Computer
Vision
Color
RAW
RAW
Rata
Date and
Time
HEIF
First HEIF accelerator
for capture and playback
Depth
Map
Location
Alpha
Mask
Exposure
(Shutter Speed, Aperture,
ISO, etc)
Burst
Photos
HEVC
Video
Animated
Photo

Date Finder
PJ
Loves to ski.
Mama's boy.







OKLAHOMA
44

Telephoto

Wide Angle

Super-wide Angle

Single HEIF File

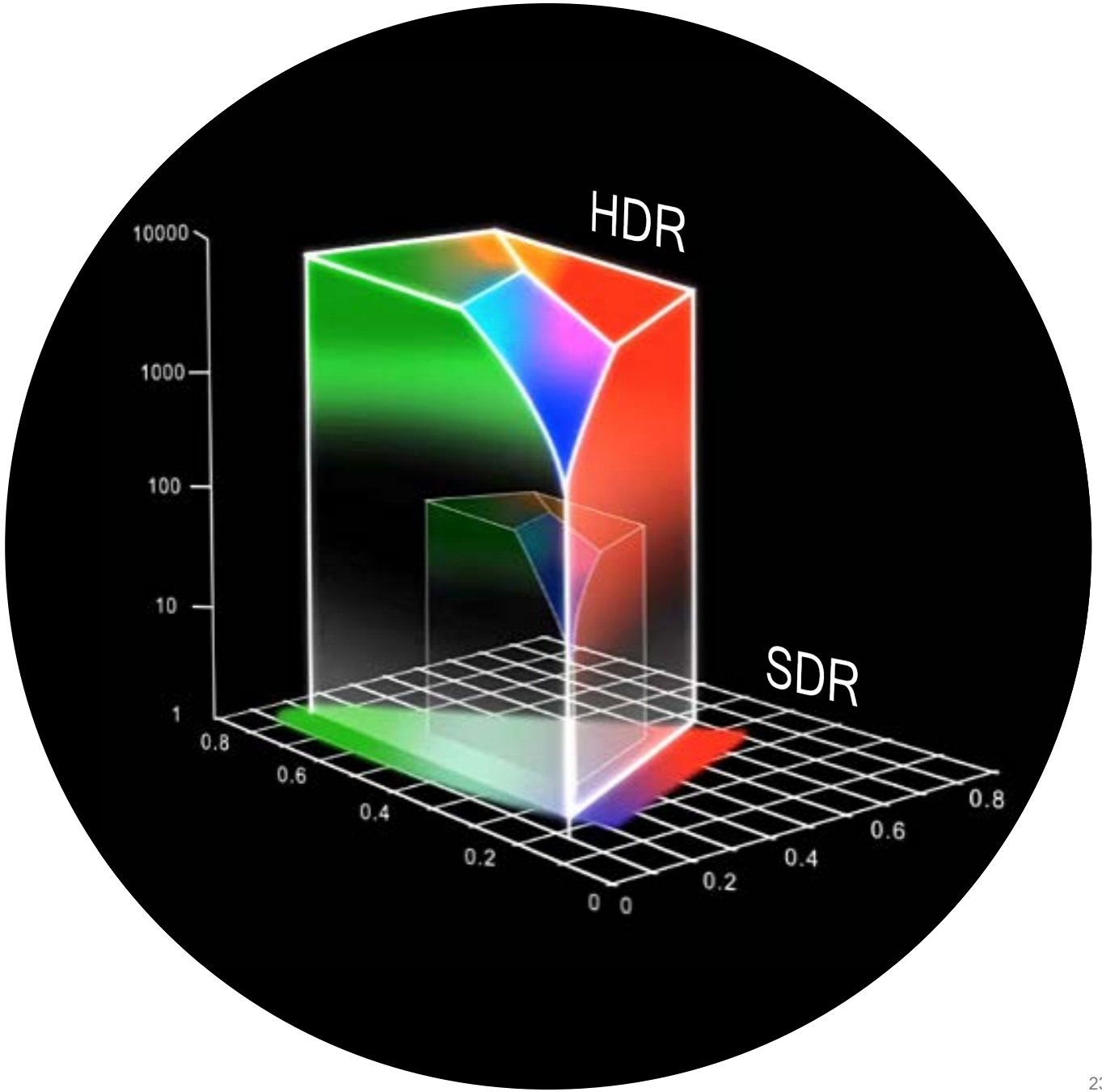
2nd Generation

4K HDR

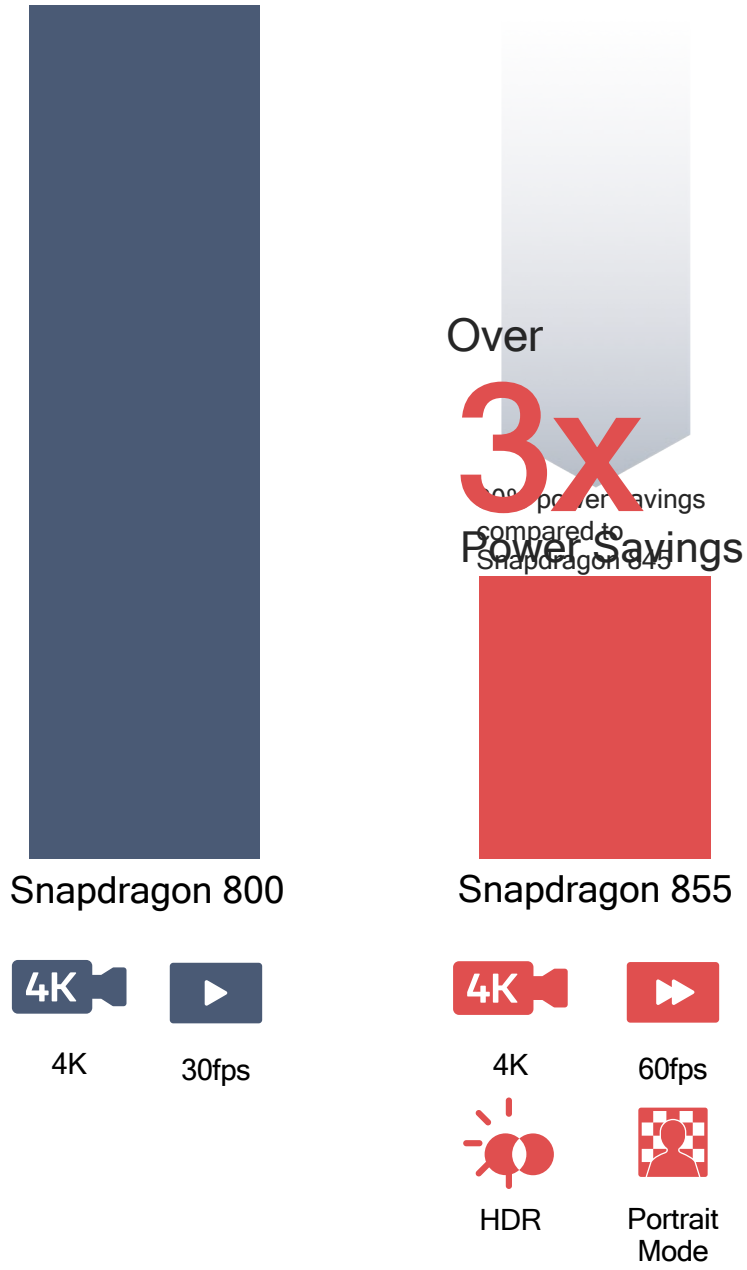
Video Capture

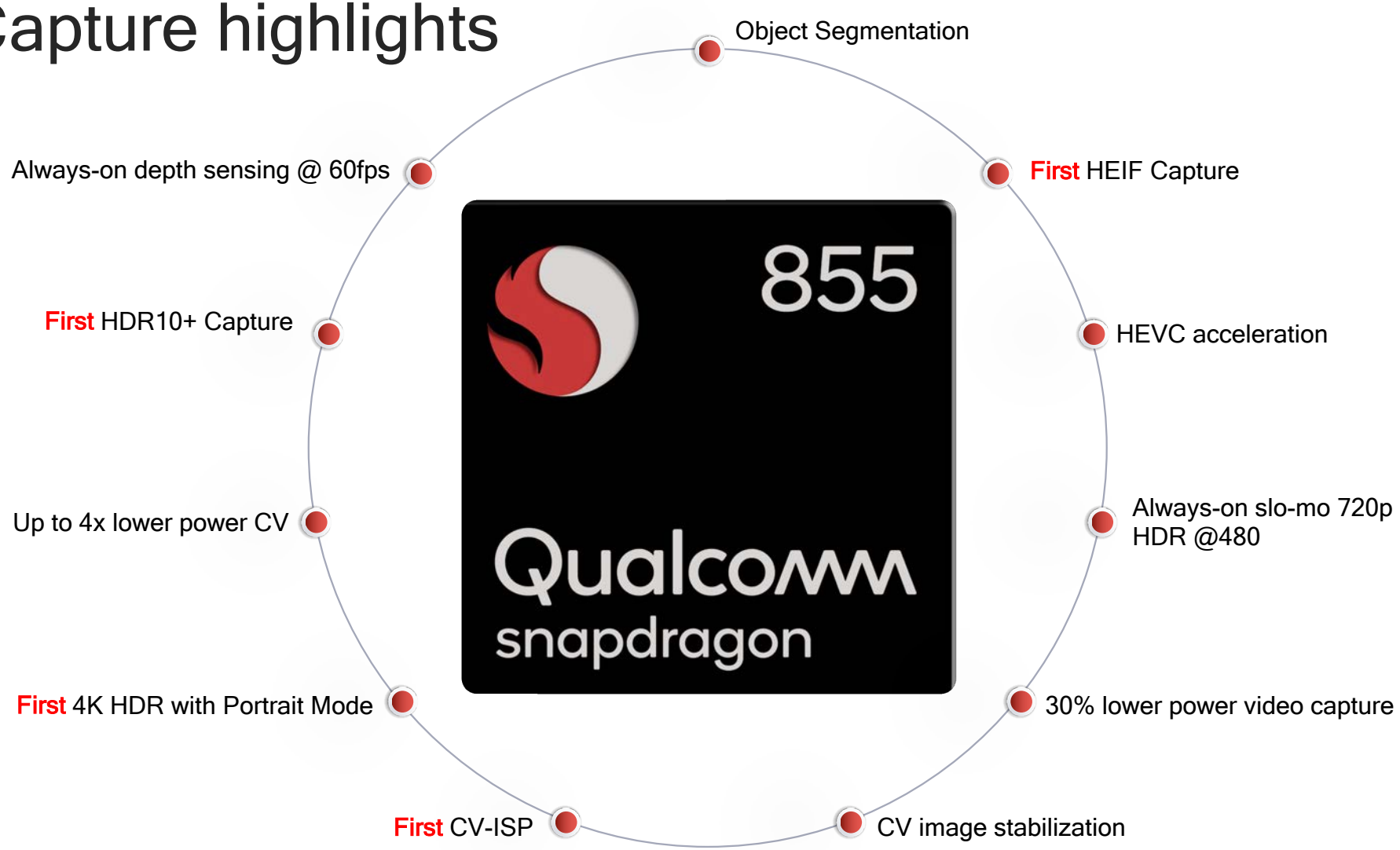
Capture over 1 billion shades of color

HDR10+
World's **First** on Mobile



Power savings
in 4K video capture



Snapdragon 855

Capture highlights