

# EDGE AI APPLICATION ENGINEERING SERVICES

Accelerate | Optimize | Differentiate

## Trends

By 2020, more than 750 million edge AI chips that perform or accelerate machine learning tasks on-device, rather than in a remote data center. This number representing a US\$2.6 billion in revenue. By 2024 edge AI chips is expected to exceed 1.5 billion.

Global edge Artificial Intelligence (AI) software market size to grow from USD 356 million in 2018 to USD 1,152 million by 2023.

The consumer edge AI chip market is much larger than the enterprise market, AI based cutting-edge digital applications as we see

- The adoption of safety related electronics systems in the automotive sector
- With connected devices security is still one of the key feature expected by consumers as well as the product owners

## Opportunities

The video and image recognition segment will hold the largest share in the edge AI software market.

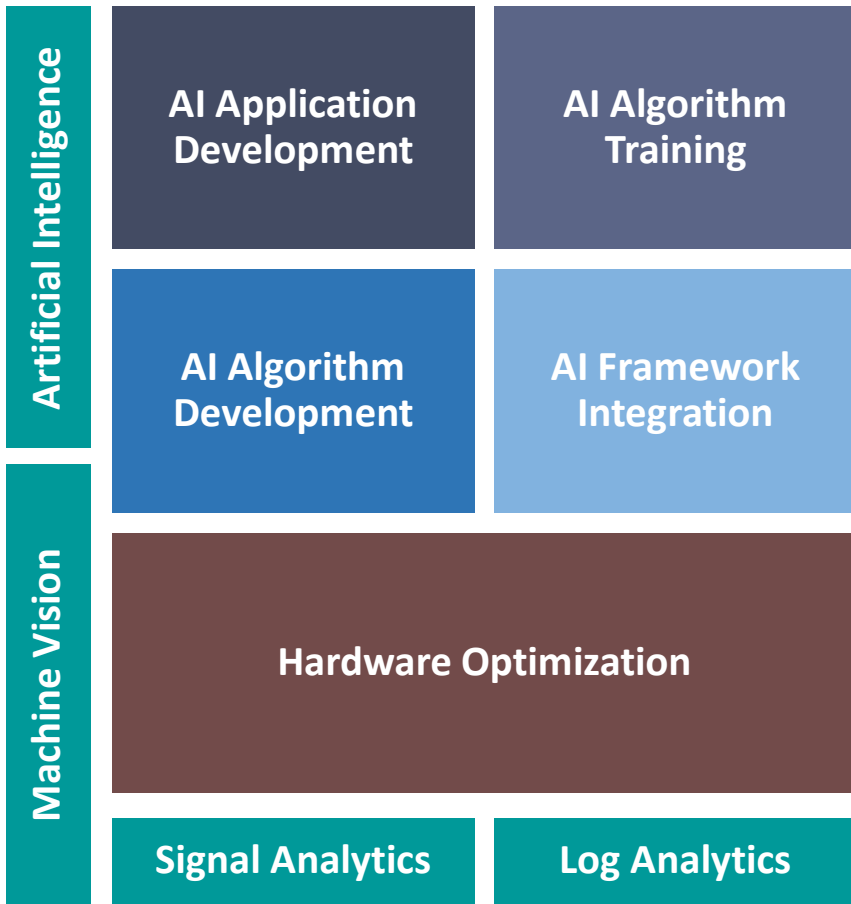
- Video surveillance applications
  - edge AI software to analyze images, videos, gestures, acoustics, and motions
- Autonomous vehicle market - AI-based autonomous vehicles
- Edge AI solutions for data security and privacy
- Remote Monitoring & Predictive Maintenance
- Access Management – Enterprise section
- Telemetry
- Energy Management
- Edge Data centres



## Consumer benefits

- Enhancing product efficiency and minimizing operational costs
- Reduced operating costs for cloud services and data processing plans
- Brings brands and consumer closer than ever before

# EDGE AI SERVICE OVERVIEW



## AI Models

- Object Detection & Gesture Recognition
- Footstep Detection, Object Classification, Eye Gaze detection
- Sound & Emotion Detection

## Frameworks

- TensorFlow
- PyTorch
- TensorRT
- Keras
- Caffe

## Differentiators

- Deep Learning framework to generate platform agnostic models
- Optimized AI modules
- Edge AI modules on MCU, MPU, GPU & FPGA

## Sample cases

### Factory automation

- Anomaly detection in Gear Box at the Edge In Factory Machinery
- Anomaly detection in Wafer production

### Optimizing AI for low footprint

- Framework independent AI source for Edge platform