

use_case_class	use_case_name	sector_primary	edge_node_prim	kpi_or_value_prop_example
ai vision	farming and agriculture - harvest and inspect	agriculture	cameras	qa rejection accuracy or throughput
ai vision	inspection for gate or fence security	federal	cameras	qa rejection accuracy or throughput
ai vision	chemical plant monitoring for atypical viscosity	industrial	cameras	qa rejection / lost batches
ai vision	FDA regulated facility - best practices health & hygiene	industrial	cameras	483 violations per plant / per year
ai vision	forest fires and power line fires - remote locations	industrial	cameras	accuracy / cost per node
ai vision	pipeline spill detection	industrial	cameras	time to respond
ai vision	pipeline internal PIG inspection	industrial	cameras	defects per cost of inspect
ai vision	weld quality inspection	industrial	cameras	quality kpis and throughput
ai vision	paint plant detect imperfections	industrial	cameras	qa kpis / lost batches / quality grade
ai vision	QA inspection - quality manufacturing	industrial	cameras	qa rejection accuracy or throughput
ai vision	shipping and receiving volume monitoring	industrial	cameras	supply chain disruptions / time to res
ai vision	retail aisle monitoring for slip spills	retail	cameras	lawsuits per store per year
ai vision	retail monitoring for purchase linger and inventory	retail	cameras	sales per linear foot shelf space
ai vision	retail monitoring for store aisle traffic heat mapping	retail	cameras	sales per linear foot shelf space
ai vision	social distancing crowd density monitor and alert	retail	cameras	violations per location per week
ai vision	License plate recognition (LPR)	smarter cities	cameras	cost per node
ai vision	railway - rolling stock and rail anomaly detection	transportation	cameras	reduction of danger events
ai vision	railway - track signal system modernization	transportation	cameras	cost of upgrades / truck rolls
ai vision	rideshare guarding driver security	transportation	cameras	driver injuries / time to police respon
ai vision	thermal - airport immigration - elevated temperature	transportation	camera - thermal	positive infections per 1000 screened
ai vision	traffic counting and monitor risky intersections	transportation	cameras	deaths per intersection; traffic speed
ai vision	truck cab watching for driver fatigue	transportation	cameras	accidents per driver per year
ai vision	Railway Rolling Stock - Missing / Damaged Components	transportation	railway cameras	asset life extension / failures
ai vision	Rail Track Inspection / Damage to Fixed Assets	transportation	railway cameras	asset life extension / failures
ai vision	Visual Inspection - Graffiti - cars and infrastructure	transportation	railway cameras	reduction of vandalism
ai vision	Rail Crossings - Vehicle Detection between closed gates	transportation	railway cameras	accidents / car strikes
ai vision	Security - unauthorized people in yards, near trains	transportation	railway cameras	accidents / trespasses
ai vision	Visual Inspection - Hal Damage - Aircraft	transportation	drones and came	turnaround on inspect
ai vision	Visual Inspection - Bird Strike / Lightning Strike - Aircraft	transportation	drones and came	turnaround on inspect
automation	farming and agriculture - irrigation	agriculture	controller	cost per gallon of water
automation	farming and agriculture - target pesticides	agriculture	drone and came	chemicals per acre or per plant
automation	agriculture - high density vertical farms controls	agriculture	controller	crop yield per acre and cost
automation	automobile - entertainment system	entertainment	vehicle	cost per unit
automation	drones as first responders	federal	drone and came	autonomous workload disconnected
automation	drone nav and vision	federal	drone and came	speed of innovation / speed to reconfi
automation	forklift telemetry and asset health	industrial	vehicle	less breakdown or injury events
automation	humanoid robot for construction	industrial	controllers & cam	flexibility, accuracy, cost
automation	cobot / humanoid robot for shipping	industrial	controllers & cam	flexibility, accuracy, cost
automation	industrial - repurpose CNC tools for new applications	industrial	industrial assets	capacity utilization / flexibility
automation	life science robotic lab testing; scale X1000	industrial	controller	cost per experiment
automation	quadruped robot for warehouse tasks	industrial	controllers & cam	flexibility, accuracy, cost
automation	robot arm control system	industrial	controller	capacity utilization / flexibility
automation	autonomous ship sailing across ocean	transportation	controllers & cam	autonomous workload disconnected
automation	self driving car - autonomous navigation	transportation	vehicle	accidents per vehicle / traffic error
automation	Locomotive Computers - OCP / System Upgrade	transportation	railway nodes	total cost of compute per node
communications	DOD - Autonomic RF Network Layer	communications	antenna & comm	time to deploy high speed network
communications	5G antenna array gain adjust	communications	antenna & comm	antenna cost per square mile
communications	drone RF survey of signal strength - 5G	communications	antenna & comm	average signal strength / gaps
communications	low earth orbit comms & compute network	communications	compute for edge	paying customers per satellite
communications	5G Phased Array Beamforming	communications	antenna & comm	RF infra dollars per acre serviced
communications	private LTE CBR5 for industrial	communications	antenna & comm	cost per node or acre at low latency
communications	software defined phased array radio - SDPAR	communications	antenna & comm	RF infra dollars per acre serviced
communications	XR remote and mobile usage	communications	vehicle	frames per second at edge
communications	VR - fully immersive XR experience	communications	home hub	latency / fps / cost per user hour
communications	5G network build out (national provider)	communications	antenna & comm	cost per node for high speed comms
communications	RF 5G signal coverage	communications	antenna & comm	fidelity of situational awareness / blin
communications	unauthorized RF signal detection	communications	antenna & comm	cost to deploy / detected unauthorized
communications	Cloud Gaming	entertainment	gaming console	latency / cost per game hour
communications	video optimization	entertainment	network appliance	cost per content at latency
communications	Dynamic Environment Sensing w mmWave	federal	antenna & comm	fidelity of situational awareness / blin
communications	verbal command and control of assets - disconnected	industrial	compute for edge	accuracy / cost per node
defense	decision support - sigint - next gen interfaces	federal	compute for edge	incremental gain in actionable signal
defense	field asset instrumentation - legacy asset retrofits	federal	vehicle	cost per retrofit node / asset TCO / ba
defense	forward operating base comms monitor	federal	antenna & comm	FOB comms robustness / bad actor al
defense	inter agency equipment, systems and data interoperation	federal	compute for edge	index of equipment interoperability
defense	security - automated monitoring - fob perimeter or compound	federal	cameras	time to alert, respond / intrusions
health	brain computer interface	health	BCI computer	accuracy / compute per watt
health	eldercare - age at home - accident detection	health	home hub	time to response on action events
health	eldercare - age at home - emotional / empathetic	health	home hub	time to response on action events
health	in hospital patient monitoring	health	monitor	time to respond / cost to monitor
health	worker health and well being - OSHA	industrial	sensors or camer	worker injuries or medical events
kiosk	financial - ATM disconnected operation remote mode	financial	kiosk	customer satisfaction / uptime
kiosk	financial - bank ATM AI vision in camera	financial	kiosk	vandalism damage per kiosk / arrests
kiosk	transportation - bus contactless card fee collection	transportation	kiosk	customer satisfaction / uptime
kiosk	transportation - railway station ticket sales	transportation	kiosk	total cost per kiosk per year / truck ro
modernization	manufacturing plant - contamination avoidance	industrial	cameras	spoiled batches / FDA 483 violations
modernization	manufacturing plant - FDA regulations and 483 avoidance	industrial	cameras	483 violations per plant
modernization	manufacturing plant - OSHA best practices	industrial	cameras	OSHA violations per plant
modernization	SCADA infrastructure modernize and interoperation	industrial	controller	less catastrophic infrastructure events
modernization	HVAC instrumentation and monitoring / retrofit	industrial	monitor	cost to retrofit instrument per site
modernization	retail store - update of legacy POS retail equipment	retail	compute for edge	cost per checkout per year
modernization	transportation - weigh scale station automation	transportation	kiosk	total cost per kiosk per year / truck ro
monitor	acoustic machine analyze FFT outliers	industrial	audio analyzer	supplemental alerts / failures per uni
monitor	air and water quality monitoring stations	industrial	monitor	total cost per node / reduced truck ro
monitor	buildings SMART - HVAC status	industrial	monitor	cost to instrument & integrate per sit
monitor	buildings SMART - power monitoring	industrial	monitor	power consumption / cost per sense r
monitor	buildings SMART - water	industrial	monitor	water consumption / cost per sense r
monitor	energy - power transmission lines multi source alerting	industrial	monitor	time to respond and repair
monitor	energy transmission grid insights - atypical events	industrial	cameras and aco	fire events / average time to respond
monitor	energy transmission grid insights - demand response	industrial	sensor arrays	average time to respond / outages
monitor	fleet health and status	industrial	vehicle	total monitor & repair cost per vehicle
monitor	remote monitor of oil and gas	industrial	cameras and aco	cost per asset monitored
monitor	SMART Grid	industrial	monitor	cost per kWh
monitor	Predictive Maintenance	industrial	monitor	count of catastrophic fails
monitor	Insurance scoring driver safety	retail	vehicle	cost to monitor / accuracy
monitor	pharmacy HVAC and refrigeration	retail	refrigerators	spoiled medicine per year
monitor	security - home security - ai human hybrid	retail	cameras	time to respond / cost to monitor
monitor	Traffic Management	smarter cities	controllers & cam	cost per intersection
monitor	supply chain fruit in transit blockchain	transportation	cameras	cost per contract / batch spoilage
monitor	transportation and monitoring of medicine temperature	transportation	transport contain	spoiled batches per year
monitor	Acoustic Analysis - atypical sounds / alert	transportation	railway nodes	failure detection
monitor	Railcar Chemical Monitoring (temp, time in transit)	transportation	railway nodes	lost batches