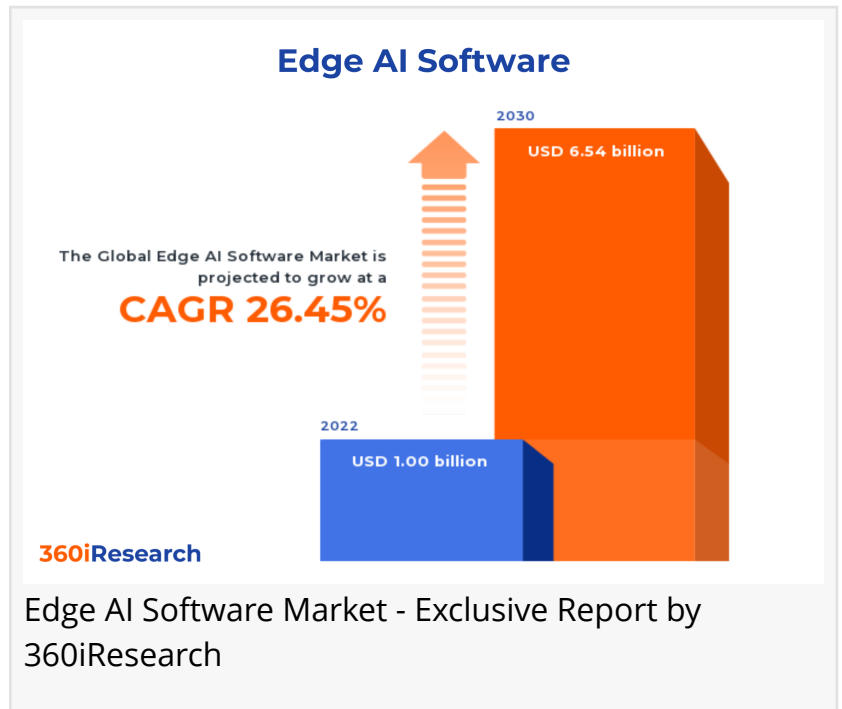


Edge AI Software Market worth \$6.54 billion by 2030, growing at a CAGR of 26.45% - Exclusive Report by 360iResearch

The Global Edge AI Software Market to grow from USD 1.00 billion in 2022 to USD 6.54 billion by 2030, at a CAGR of 26.45%.

PUNE, MAHARASHTRA, INDIA ,
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-- The "[Edge AI Software Market](#) by Component (Services, Solution), Data Source (Biometric Data, Mobile Data, Sensor Data), Application, End-use - Global Forecast 2023-2030" report has been added to 360iResearch.com's offering.

The Global Edge AI Software Market to grow from USD 1.00 billion in 2022 to USD 6.54 billion by 2030, at a CAGR of 26.45%.



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Edge AI refers to the deployment and utilization of AI in an edge computing environment, which allows complex computations to be done closer to where data is collected rather than at a centralized cloud computing facility or an offsite data center. Edge AI software allows machine learning algorithms to be run on a physical hardware device. Edge AI software is primarily employed in various sectors, including industrial automation, surveillance, robotics, and IoT devices. The need for real-time processing, with reduced latency and bandwidth consumption, has fueled the demand for edge AI software within these sectors, broadening the scope of the industry. The enhancement in cognitive computing capabilities, along with the surge in data generated from various smart devices, has created numerous potential opportunities for edge AI software. Difficulty of integration and handling of edge AI software and the need for a significant amount of resources to maintain edge AI software can deter new entrants in the field.

Furthermore, data privacy and security issues and a lack of standardized protocols for inter-device communications have posed hurdles to the widespread adoption of edge AI software. However, manufacturers are constantly investing in R&D initiatives to improve the privacy protocols and data security of their software services. The most promising areas for innovation and research in edge AI software are attributed to sectors such as cybersecurity, automated Healthcare systems, and smart cities. Technological advancements such as 5G connectivity, quantum computing, and advancements in natural language processing (NLP) provide opportunities for future innovation.

Data source: Generation of sensor data due to growing utilization of sensor technologies in industries

Edge AI software utilizes biometric data in an effective manner in order to validate authentications and build more complex use cases. The biometric data typically managed by the software might include fingerprints, facial recognition, and iris patterns, among others. Mobile data forms a critical part of edge AI with real-time analytics, managed directly on mobile or IoT devices. Edge AI enables devices to process and interpret data locally, thereby enhancing performance and reducing both latency and the need for constant internet connection. Edge AI software's effective utilization of sensor data stems from IoT devices, industrial machines, smart home systems, and autonomous vehicles. Speech recognition, as an application of edge AI, holds tremendous value in hands-free device control, transcription services, and assistive technology. Video and image recognition capabilities support real-time video analytics, object detection, and facial recognition. Since edge AI processes the data locally, it minimizes bandwidth use and latency, thus optimizing the efficiency of surveillance systems, autonomous vehicles, and other technologies relying heavily on visual data.

End-use: Need to ensure optimum data security and privacy in government & public Sector
In the automotive industry, edge AI software aids in functions such as advanced driver assistance systems (ADAS), predictive maintenance, and infotainment. Edge AI software plays an important role in energy consumption prediction, power grid optimization, and operational efficiency in the energy and utilities sector. The demand for edge AI software is driven by the need for sophisticated surveillance systems, data security, and intelligent public services in the government and public sector. Edge AI has a tremendous impact on remote patient monitoring, medical image analysis, and predictive analytics in healthcare. The manufacturing industry utilizes edge AI software for predictive maintenance, quality assurance, and real-time equipment monitoring. Edge AI is essential in the telecom industry for network optimization, real-time monitoring, fraud detection, and customer service.

Application: Growing sustainability concerns driving adoption of edge AI software in energy management

Access management solutions are used by organizations to authenticate, authorize, and audit access to on-premises and cloud-based applications and IT systems. Edge AI software finds substantial application in access management, where it uncovers patterns in behavior to identify potential security risks. AI at the edge is essential for autonomous vehicles as it offers real-time

data processing, predictive analytics, and machine learning capabilities required for sophisticated navigation systems. The energy management segment utilizes edge AI solutions to optimize energy consumption based on real-time data. It aids in predicting energy needs and managing supply efficiently, thus saving costs and reducing environmental impact. Edge AI has transformed precision agriculture by enabling real-time crop monitoring, optimizing resources, and maximizing crop yield. Remote monitoring and predictive maintenance applications are increasingly embracing edge AI technology to predict equipment failures and determine optimal maintenance schedules. Edge AI has been key to improving the functionality of smart wearables by providing real-time health tracking, user recommendations, and data security. Telemetry allows the collection, transmission, and measurement of data from diverse remote sources using sensors and other devices. Telemetry has been greatly enhanced by edge AI's ability to analyze and interpret diverse data sets in real-time. Edge AI in video surveillance enables sophisticated functions such as facial recognition, motion detection, and behavioral analysis.

Component: Research initiatives to support advancements in edge AI software solutions

Services in the context of edge AI software comprise consultation, integration, and support services that enhance the overall functioning, usability, and optimization of the edge AI software solutions. These services are aimed at helping businesses tailor AI implementations to their unique needs, thus driving efficiencies and business growth. Support and maintenance of edge AI software services include regular system updates, prompt troubleshooting, performance optimization, real-time threat anomaly detection, and continuous monitoring for proactive fault anticipation. Reliable performance is ensured by practicing meticulous system integration and testing routines. Training and consulting include technical training, consultative services for best practice approaches, and advisory services for strategic edge computation use. The solution segment revolves around the application of AI technologies at the edge of the network. This includes machine learning, deep learning, natural language processing, and computer vision. The edge AI platform is a comprehensive ecosystem that facilitates data collection, processing, analytics, and decision-making at the edge of the network. Software tools for edge AI include pre-built AI models, AI algorithms, algorithm training tools, analytics software, and application development tools.

Regional Insights:

The demand for edge AI Software in the Americas, notably in the United States and Canada, is fueled by technological advancements and a growing user base. These countries are characterized by high investment in AI research, technological patents, data centers, and computing technologies. Furthermore, the rapid adoption of IoT and sensor technologies in industrial use cases has driven the demand for edge AI software. EU countries, driven by stringent data privacy regulations, are striving to increase the use of edge AI, lessening the need for data transport. European nations are also characterized by robust research infrastructure for AI programs and technologies, contributing to significant advancements in edge AI software. In the EU, edge computing devices and technologies equipped with AI software are rapidly being deployed to advance healthcare research. In the APAC region, China, Japan, and India drive the adoption of edge AI software due to their vast consumer base and rapid digital transformation.

China has government-backed programs for technological research and smart city initiatives. Meanwhile, Japan is investing heavily in robot technology along with AI-infused solutions, thereby demonstrating a broad scope for edge AI software. India's landscape for edge AI software holds massive potential due to its tech-savvy demographics and growing digital ecosystem.

FPNV Positioning Matrix:

The FPNV Positioning Matrix is essential for assessing the Edge AI Software Market. It provides a comprehensive evaluation of vendors by examining key metrics within Business Strategy and Product Satisfaction, allowing users to make informed decisions based on their specific needs. This advanced analysis then organizes these vendors into four distinct quadrants, which represent varying levels of success: Forefront (F), Pathfinder (P), Niche (N), or Vital(V).

Market Share Analysis:

The Market Share Analysis offers an insightful look at the current state of vendors in the Edge AI Software Market. By comparing vendor contributions to overall revenue, customer base, and other key metrics, we can give companies a greater understanding of their performance and what they are up against when competing for market share. The analysis also sheds light on just how competitive any given sector is about accumulation, fragmentation dominance, and amalgamation traits over the base year period studied.

Key Company Profiles:

The report delves into recent significant developments in the Edge AI Software Market, highlighting leading vendors and their innovative profiles. These include Adapdix, Inc., Alef Edge, Inc., Amazon Web Services, Inc., Anagog Ltd., Atos SE, Azion Technologies, Inc., Blaize, byteLAKE s.c., ClearBlade, Inc., Ekinops S.A., Eurotech S.p.A., Google LLC by Alphabet, Inc., Gorilla Technology Group Inc., Gorilla Technology Inc., Hailo Technologies Ltd., Imagimob AB, Infineon Technologies AG, Intel Corporation, International Business Machines Corporation, Johnson Controls International PLC, Kinara Inc., Kneron, Inc., Mavenir Systems, Inc., Microsoft Corporation, Numurus LLC, Nutanix, Inc., NVIDIA Corporation, Synaptics Incorporated, T-DAB.AI Ltd., Tact.ai Technologies, Inc., Tata Elxsi Limited, TIBCO Software Inc., Veea Inc., VMWare, Inc., and ZEDEDA, Inc..

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Market Segmentation & Coverage:

This research report categorizes the Edge AI Software Market in order to forecast the revenues and analyze trends in each of following sub-markets:

Based on Component, market is studied across Services and Solution. The Services is further studied across Support & Maintenance, System Integration & Testing, and Training & Consulting. The Solution is further studied across Platform and Software Tools. The Services commanded largest market share of 57.68% in 2022, followed by Solution.

Based on Data Source, market is studied across Biometric Data, Mobile Data, Sensor Data, Speech Recognition, and Video & Image Recognition. The Mobile Data commanded largest market share of 30.33% in 2022, followed by Sensor Data.

Based on Application, market is studied across Access Management, Autonomous Vehicles, Energy Management, Precision Agriculture, Remote Monitoring & Predictive Maintenance, Smart Wearables, Telemetry, and Video Surveillance. The Video Surveillance commanded largest market share of 23.23% in 2022, followed by Remote Monitoring & Predictive Maintenance.

Based on End-use, market is studied across Automotive, Energy and Utilities, Government & Public Sector, Healthcare, Manufacturing, and Telecom. The Telecom commanded largest market share of 32.34% in 2022, followed by Government & Public Sector.

Based on Region, market is studied across Americas, Asia-Pacific, and Europe, Middle East & Africa. The Americas is further studied across Argentina, Brazil, Canada, Mexico, and United States. The United States is further studied across California, Florida, Illinois, New York, Ohio, Pennsylvania, and Texas. The Asia-Pacific is further studied across Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. The Europe, Middle East & Africa is further studied across Denmark, Egypt, Finland, France, Germany, Israel, Italy, Netherlands, Nigeria, Norway, Poland, Qatar, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, and United Kingdom. The Europe, Middle East & Africa commanded largest market share of 42.23% in 2022, followed by Americas.

Key Topics Covered:

1. Preface
2. Research Methodology
3. Executive Summary
4. Market Overview
5. Market Insights
6. Edge AI Software Market, by Component
7. Edge AI Software Market, by Data Source
8. Edge AI Software Market, by Application
9. Edge AI Software Market, by End-use
10. Americas Edge AI Software Market
11. Asia-Pacific Edge AI Software Market

12. Europe, Middle East & Africa Edge AI Software Market
13. Competitive Landscape
14. Competitive Portfolio
15. Appendix

The report provides insights on the following pointers:

1. Market Penetration: Provides comprehensive information on the market offered by the key players
2. Market Development: Provides in-depth information about lucrative emerging markets and analyzes penetration across mature segments of the markets
3. Market Diversification: Provides detailed information about new product launches, untapped geographies, recent developments, and investments
4. Competitive Assessment & Intelligence: Provides an exhaustive assessment of market shares, strategies, products, certification, regulatory approvals, patent landscape, and manufacturing capabilities of the leading players
5. Product Development & Innovation: Provides intelligent insights on future technologies, R&D activities, and breakthrough product developments

The report answers questions such as:

1. What is the market size and forecast of the Edge AI Software Market?
2. Which are the products/segments/applications/areas to invest in over the forecast period in the Edge AI Software Market?
3. What is the competitive strategic window for opportunities in the Edge AI Software Market?
4. What are the technology trends and regulatory frameworks in the Edge AI Software Market?
5. What is the market share of the leading vendors in the Edge AI Software Market?
6. What modes and strategic moves are considered suitable for entering the Edge AI Software Market?

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