AI in IoT Industry Trends, Market Share, Growth Analysis and Forecast to 2032

AI in IoT market is projected to reach $91.7 billion by 2032, fueled by automation, analytics, and smart devices.

WILMINGTON, DE, UNITED STATES, June 1, 2026 /EINPresswire.com/ -- According to a new report published by Allied Market Research, the AI in IoT market size was valued at $10.3 billion in 2022 and is projected to reach $91.7 billion by 2032, registering a CAGR of 24.8% from 2023 to 2032. The rapid integration of artificial intelligence with Internet of Things technologies is transforming industries worldwide by enabling intelligent automation, predictive analytics, enhanced decision-making, and real-time operational optimization.

> Growing adoption of AI-powered IoT solutions across industries drives strong market growth through 2032."
>
> *Allied Market Research*

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Introduction

The convergence of artificial intelligence (AI) and the Internet of Things (IoT) is creating one of the most transformative technological ecosystems of the modern digital era. AI-powered IoT systems enable connected devices to collect, process, analyze, and act on data in real time without requiring extensive human intervention. This combination is helping organizations improve operational efficiency, reduce costs, enhance customer experiences, and generate actionable business insights.

The AI in IoT market has witnessed remarkable growth in recent years as businesses increasingly adopt smart technologies to improve productivity and gain competitive advantages. IoT devices generate enormous amounts of data every second, and AI technologies provide the intelligence needed to analyze this information effectively. Together, these technologies are enabling

smarter decision-making across industries including manufacturing, healthcare, transportation, agriculture, retail, and smart cities.

As organizations continue their digital transformation journeys, the demand for intelligent connected systems is expected to rise significantly. This trend is creating substantial growth opportunities for technology providers operating within the AI in IoT market.

Understanding the Role of AI in IoT

Artificial intelligence enhances IoT systems by enabling connected devices to learn from data, identify patterns, predict outcomes, and make autonomous decisions. Traditional IoT systems primarily focused on data collection and connectivity. However, AI adds a layer of intelligence that transforms raw data into valuable insights.

AI-powered IoT solutions can monitor equipment performance, detect anomalies, predict maintenance requirements, optimize energy consumption, automate workflows, and improve operational efficiency. These capabilities have become increasingly valuable as businesses seek to manage growing volumes of data while maintaining high levels of productivity.

The AI in IoT market is benefiting from advancements in machine learning, deep learning, natural language processing, computer vision, and cloud computing technologies. These innovations are making intelligent automation more accessible and effective across a wide range of applications.

Market Dynamics Driving Growth

Rising Demand for Intelligent Automation

One of the primary factors fueling the AI in IoT market is the increasing demand for intelligent automation across industries. Businesses are continuously looking for ways to streamline operations, reduce labor costs, and improve process efficiency.

AI-powered IoT solutions automate routine tasks, monitor systems continuously, and provide real-time recommendations for operational improvements. This reduces human errors while increasing productivity and operational reliability.

Manufacturers, logistics providers, healthcare organizations, and retailers are increasingly deploying AI-enabled IoT systems to automate complex workflows and improve overall business performance. As automation becomes a strategic priority, the AI in IoT market is expected to witness sustained growth.

Growing Importance of Real-Time Data Analytics

Modern organizations generate vast amounts of data from connected devices, sensors, machines, and digital platforms. Extracting meaningful insights from this information has become essential for maintaining competitiveness.

AI technologies enable real-time processing and analysis of IoT-generated data, allowing organizations to make informed decisions faster. Predictive analytics, anomaly detection, and intelligent forecasting capabilities help businesses identify opportunities and risks before they impact operations.

The increasing reliance on data-driven decision-making is significantly contributing to the expansion of the AI in IoT market globally.

Smart Transportation and Urban Development

Urbanization is creating increased demand for intelligent transportation systems capable of improving traffic management, reducing congestion, and enhancing public safety.

AI-enabled IoT solutions support smart traffic control systems, connected vehicles, predictive maintenance for transportation infrastructure, and intelligent route optimization. These technologies improve mobility while reducing fuel consumption and environmental impact.

As governments invest in smart city initiatives worldwide, the AI in IoT market is expected to benefit from rising demand for connected urban infrastructure solutions.

AI in IoT Transforming Multiple Industries

Manufacturing Sector Leads Adoption

The manufacturing sector remains one of the largest adopters within the AI in IoT market. Smart factories increasingly rely on connected devices and AI algorithms to optimize production processes, improve quality control, and minimize downtime.

Predictive maintenance solutions allow manufacturers to identify equipment issues before failures occur, reducing maintenance costs and improving operational efficiency. AI-powered analytics also help optimize inventory management, energy consumption, and supply chain performance.

According to market analysis, the manufacturing sector accounted for the largest revenue share in 2022 and is expected to continue driving significant demand throughout the forecast period.

Healthcare Industry Embraces Intelligent Monitoring

Healthcare providers are increasingly utilizing AI-enabled IoT solutions for patient monitoring,

remote healthcare services, and operational management. Connected medical devices can collect patient data continuously, while AI systems analyze the information to identify potential health risks.

These technologies improve patient outcomes, reduce hospital readmissions, and enable healthcare professionals to deliver more personalized care. As healthcare digitalization accelerates, the AI in IoT market is expected to gain additional momentum.

Agriculture Benefits from Precision Farming

Agricultural organizations are adopting AI-powered IoT technologies to improve crop management, optimize irrigation, monitor soil conditions, and enhance resource utilization.

Smart farming solutions provide real-time insights that help farmers make informed decisions regarding planting, harvesting, and pest management. These technologies support sustainable agriculture while improving productivity and profitability.

Retail and Consumer Applications

Retailers are increasingly implementing AI-enabled IoT systems to improve customer experiences, optimize inventory management, and personalize marketing strategies.

Connected devices and AI analytics help businesses understand consumer behavior, predict purchasing trends, and deliver customized recommendations. The growing emphasis on customer-centric strategies continues to create opportunities within the AI in IoT market.

Machine Learning and Deep Learning Dominate Technology Segment

Based on technology, the machine learning and deep learning segment accounted for the largest share of the AI in IoT market in 2022 and is expected to maintain its leadership position throughout the forecast period.

Machine learning algorithms enable IoT systems to identify patterns, analyze historical data, and improve performance over time without explicit programming. Deep learning models further enhance these capabilities by processing large volumes of structured and unstructured data with exceptional accuracy.

Organizations are increasingly investing in machine learning and deep learning technologies to improve predictive analytics, automate decision-making, and enhance operational efficiency. The growing need for advanced data intelligence is expected to continue driving demand for these

technologies.

Natural Language Processing Emerges as Fastest-Growing Segment

While machine learning currently dominates the market, natural language processing (NLP) is anticipated to experience the highest growth rate during the forecast period.

NLP technologies enable users to communicate with IoT devices using natural language commands through voice assistants, chatbots, and conversational interfaces. These solutions improve accessibility, user experience, and system usability.

The increasing adoption of smart speakers, virtual assistants, and voice-controlled devices is accelerating demand for NLP-powered IoT applications. Businesses are leveraging these capabilities to provide personalized customer interactions and streamline operational workflows.

As voice-based technologies become more sophisticated, NLP is expected to play a crucial role in shaping the future of the AI in IoT market.

Platform Segment Generates Highest Revenue

By component, the platform segment accounted for the largest share of the AI in IoT market in 2022. AI-enabled IoT platforms provide the infrastructure required to connect devices, manage data, deploy applications, and analyze information effectively.

These platforms support seamless integration between hardware, software, cloud services, and analytics tools. Organizations rely on them to build scalable and secure IoT ecosystems capable of supporting diverse operational requirements.

As enterprises continue investing in digital transformation initiatives, demand for advanced AI-powered IoT platforms is expected to increase substantially.

Impact of COVID-19 on the AI in IoT Market

The COVID-19 pandemic significantly accelerated digital transformation across industries and positively influenced the AI in IoT market. Organizations rapidly adopted remote work models, cloud-based services, and connected technologies to maintain business continuity during lockdowns.

The increased reliance on digital infrastructure created greater demand for intelligent monitoring systems, virtual collaboration tools, and automated business processes. AI-powered IoT solutions enabled organizations to monitor operations remotely and adapt to changing business environments.

The pandemic also accelerated consumer adoption of digital services and smart technologies. Businesses responded by increasing investments in AI and IoT solutions to improve operational resilience and customer engagement.

As a result, the AI in IoT market experienced strong momentum during and after the pandemic, establishing a foundation for continued growth throughout the forecast period.

Regional Analysis

North America Leads Global Market

North America dominated the AI in IoT market in 2022 and generated the highest revenue globally. The region benefits from advanced digital infrastructure, strong technology adoption, and the presence of major industry participants.

Leading technology companies continue to invest heavily in artificial intelligence, cloud computing, IoT platforms, and digital transformation initiatives. These investments are creating favorable conditions for market expansion across the United States and Canada.

Industries such as manufacturing, healthcare, transportation, and retail are increasingly adopting AI-enabled IoT solutions to improve efficiency and competitiveness. These factors continue to support North America’s leadership position in the market.

Asia-Pacific Expected to Record Fastest Growth

Asia-Pacific is projected to witness the highest growth rate during the forecast period. Rapid industrialization, urbanization, and increasing adoption of smart technologies are contributing significantly to regional market expansion.

Countries including China, India, Japan, South Korea, and Southeast Asian nations are investing heavily in smart manufacturing, connected infrastructure, healthcare digitalization, and smart city development.

The growing adoption of contactless technologies, automation solutions, and connected devices across various sectors is expected to create lucrative opportunities for companies operating in the AI in IoT market.

Emerging Trends Shaping the Future

Several emerging trends are expected to influence the future direction of the AI in IoT market.

Edge computing is gaining popularity as organizations seek faster data processing capabilities

closer to connected devices. This approach reduces latency and improves real-time decision-making.

The expansion of 5G networks is enabling faster connectivity, greater device density, and improved reliability for IoT applications. Enhanced connectivity will support more advanced AI-powered services and applications.

Digital twins are becoming increasingly important for monitoring and optimizing industrial assets through virtual simulations and predictive analytics. These technologies help organizations improve operational efficiency and reduce costs.

In addition, cybersecurity is becoming a critical focus area as connected ecosystems expand. AI-driven security solutions are helping organizations identify threats, detect anomalies, and strengthen protection across IoT networks.

Competitive Landscape

The AI in IoT market is highly competitive, with major technology companies focusing on innovation, partnerships, acquisitions, and product development to strengthen their market positions.

Leading market participants are continuously investing in advanced AI capabilities, cloud infrastructure, and IoT platform development to address evolving customer requirements.

Key companies operating in the market include Amazon Web Services, Google, Hitachi, IBM, Oracle, PTC, Salesforce, SAP, SAS Institute, and Softweb Solutions.

These organizations are adopting strategic partnerships, business expansion initiatives, and new product launches to strengthen their presence in the rapidly evolving market.

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Future Outlook

The future of the AI in IoT market remains highly promising as organizations increasingly prioritize intelligent automation, real-time analytics, and connected digital ecosystems. The integration of AI with IoT technologies is expected to become a cornerstone of digital transformation strategies across industries.

Growing investments in smart infrastructure, cloud computing, edge analytics, 5G connectivity, and intelligent devices will continue to create substantial growth opportunities. Businesses are recognizing the value of AI-powered insights in improving operational efficiency, enhancing

customer experiences, and achieving sustainable growth.

With expanding adoption across manufacturing, healthcare, transportation, agriculture, retail, and smart city applications, the AI in IoT market is positioned for exceptional growth over the next decade. As innovation continues to accelerate, AI-enabled IoT solutions will play a critical role in shaping the future of connected and intelligent enterprises worldwide.

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David Correa
Allied Market Research
+ + + + + + + + + + + + +1 800-792-5285
email us here
Visit us on social media:
LinkedIn
Facebook
YouTube
X
