

U.S. Edge AI Market Size, Share & Trends Analysis Report By Component (Hardware, Software, Edge Cloud Infrastructure, Service) By End User (Consumer Electronics, Smart Cities, Manufacturing), And Segment Forecasts, 2025 - 2030

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Abstracts

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U.S. Edge AI Market Size & Trends

The U.S. edge AI market size was valued at USD 6898.8 million in 2024 and is expected to grow at a CAGR of 16.9% from 2025 to 2030. This substantial growth can be attributed to several factors, including government initiatives that promote AI adoption and significant investments from private enterprises. Moreover, the growth in this country is driven by the increasing demand for real-time data processing and analysis at the network's edge. This surge is propelled by industries such as healthcare, manufacturing, and telecommunications, which seek to enhance operational efficiency and reduce latency by processing data closer to its source.

Furthermore, the U.S. market benefits from a highly skilled workforce and advanced research institutions that drive technological advancements in AI. Integrating AI into sectors such as automotive, healthcare, and retail is enhancing operational efficiencies and enabling new service models that rely on real-time data analysis at the edge. This trend underscores the importance of edge AI in meeting the growing demand for faster and more reliable data processing.

As organizations across the U.S. continue to invest in edge AI technologies, the market is expected to witness an influx of new applications and services designed to improve

user experience and operational outcomes. The focus on developing scalable solutions that can adapt to varying industry needs is likely to further contribute to the dynamic growth of the U.S. market.

Moreover, in January 2025, Synaptics Incorporated announced its partnership with Google to advance edge AI for the Internet of Things (IoT). This collaboration aims to establish the best practices for multimodal processing in context-aware computing. As per the collaboration, Google's machine learning core, which complies with the MLIR framework, will be integrated on Synaptics' Astra hardware with open-source software tools.

Component Insights

The hardware segment accounted for the highest revenue share of 51.9% in 2024. The rising need for real-time data processing capabilities in various applications such as IoT devices, autonomous vehicles, and smart cities primarily fuels this growth. With businesses increasingly relying on local data processing to enhance operational efficiency and reduce latency, the demand for advanced hardware solutions is increasing. Major players in the market are focusing on developing specialized processors and GPUs that cater to these needs, thereby expanding their market share. Major initiatives in the market. For instance, in April 2025, NVIDIA is launching the first-ever American-made AI supercomputers, partnering with leading manufacturers to build and test NVIDIA Blackwell chips and AI systems in Arizona and Texas. This initiative aims to produce up to half a trillion dollars of AI infrastructure in the U.S., creating hundreds of thousands of jobs and strengthening the domestic AI supply chain

The software segment registered a CAGR of 19.7% from 2025 to 2030. This can be attributed to the increasing demand for software solutions that facilitate real-time analytics and machine learning at the edge. As organizations seek to harness the power of AI-driven insights without relying heavily on centralized cloud systems, there is a growing emphasis on developing sophisticated software applications tailored for edge environments. Key initiatives in the country. For instance, in May 2025. Qualcomm Technologies and Aramco Digital have entered a strategic collaboration to develop, deploy, and commercialize advanced edge AI and industrial IoT solutions, leveraging Aramco Digital's 450 MHz 5G industrial network to enhance efficiency, safety, and sustainability across Saudi Arabia's industries in alignment with Vision 2030. This partnership aims to accelerate digital transformation and innovation in the Kingdom's industrial sectors through cutting-edge AI and 5G technologies

U.S. Edge AI Market Report Segmentation

This report forecasts revenue growth at U.S. and provides an analysis of the latest industry trends in each of the sub-segments from 2018 to 2030. For this study, Grand View Research has segmented the U.S. edge AI market report based on component and end use.

Component Outlook (Revenue, USD Million, 2018 - 2030)

Hardware

Software

Edge Cloud Infrastructure

Services

End Use Outlook (Revenue, USD Million, 2018 - 2030)

Consumer Electronics

Smart Cities

Manufacturing

Automotive

Government

Healthcare

IT & Telecom

Energy

Retail

Others

Companies Mentioned

NVIDIA Corporation
Qualcomm Technologies, Inc.
Intel Corporation
Advanced Micro Devices, Inc.
Ambarella International LP.
Synaptics Incorporated.
Amazon Web Services, Inc.
Google
Nutanix
BrainChip, Inc.

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