Global Deep Learning In Diagnostics Market to Reach $11.84 Billion at a Steady 35.8% CAGR by 2029

The Business Research Company's Deep Learning In Diagnostics Global Market Report 2025 – Market Size, Trends, And Forecast 2025-2034

LONDON, GREATER LONDON, UNITED KINGDOM, October 10, 2025 /EINPresswire.com/ -- How Large Will The Deep Learning In Diagnostics Market Be By 2025?

The Business Research Company

The application of deep learning in the field of diagnostics has seen rapid expansion in terms of its market size in recent times. The value of this market, which is projected to increase from $2.56 billion in 2024 to $3.49 billion in 2025, corresponds to a compound annual growth rate

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(CAGR) of 36.1%. Several factors have played a part in this growth in the historic period, including an increase in the amount of healthcare information available due to digital health records, a surge in the use of cloud-based diagnostic technologies, the need for quicker diagnostic results, the rising demand for affordable diagnostic alternatives in developing areas, and the increased utilization of deep learning in genomics and precision diagnostics.

The market size of deep learning in diagnostics is predicted to experience substantial expansion in the coming years, escalating to $11.85 billion in 2029 at a compound annual growth rate (CAGR) of 35.8%. This anticipated growth during the forecast period can be attributed to factors such as rising demand for early and precise detection of diseases, increased prevalence of chronic and lifestyle-related conditions, bolstered investment in artificial intelligence research and development within healthcare, a burgeoning need to lower diagnostic errors whilst enhancing accuracy, and increased implementation of digital pathology and radiology solutions. Significant market trends expected in the forecast period include advancements in AI-integrated 3D imaging, incorporation of AI with electronic health records,

progress in predictive analytics for disease identification, fusion of AI with genomic and multi-omics data, and novel developments in automated image interpretation.

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What Are The Major Driving Forces Influencing The Deep Learning In Diagnostics Market Landscape?
The surge in healthcare digitalization is predicted to fuel the expansion of the deep learning in diagnostics market. Healthcare digitalization implies the integration of digital solutions into healthcare systems to improve effectiveness, accessibility, data control, and overall patient service quality. The escalation in healthcare digitalization is triggered by its capacity to guarantee successful management and safe transfer of rapidly increasing quantities of patient information, fostering better care collaboration and educated decision-making. The digital transformation of healthcare generates vast quantities of data from medical imaging, electronic health records, and connected devices. This creates a demand for deep learning in diagnostics, as it can competently scrutinize this data and provide quicker, more precise insights than conventional methods. For example, in June 2022, The Department of Health and Social Care, a UK government entity, reported that by March 2025, all NHS trusts are anticipated to have introduced electronic health records, an increase from 90% adoption by December 2023. As such, the surge in healthcare digitalization is steering the expansion of the deep learning in diagnostics market.

Who Are The Top Players In The Deep Learning In Diagnostics Market?
Major players in the Deep Learning In Diagnostics Global Market Report 2025 include:
• International Business Machines Corporation
• Siemens Healthineers AG
• Koninklijke Philips N.V.
• GE HealthCare Technologies Inc.
• Tempus AI Inc.
• Qure.ai Technologies Pvt. Ltd.
• Freenome Holdings Inc.
• PathAI Inc.
• Aidoc Medical Ltd.
• Viz.ai Inc.

What Are The Top Trends In The Deep Learning In Diagnostics Industry?
Leaders in the diagnostics market that leverage deep learning are honing in on the creation of innovative solutions, including those propelled by AI, to secure more precise diagnoses, expedite diagnostic processes, and offer more customized care to patients. An AI-led deep learning system is a sophisticated system that employs artificial intelligence and multilayered neural networks to autonomously analyze intricate medical data, decipher patterns, and generate highly precise diagnostic insights, minimizing the need for extensive human input. For instance,

in May 2025, GE Healthcare Technologies Inc., a medical technology and diagnostics firm based in the U.S., presented CleaRecon DL, a solution specifically designed to advance image reconstruction and enhance diagnostic precision. This tool improves cone-beam CT (CBCT) imaging by effectively eliminating streak distortions, thereby delivering clearer and more accurate visuals for interventional procedures. The technology bolsters the confidence of clinicians in interpreting images and improves accuracy during interventions, as demonstrated by clinical trials that showed a 98% improvement in image clarity and 94% increased confidence. Ultimately, this leads to improved patient results by optimizing workflow and facilitating more effective, image-guided treatments.

Market Share And Forecast By Segment In The [Global Deep Learning In Diagnostics Market](link)
The deep learning in diagnostics market covered in this report is segmented as
1) By Component: Software, Hardware, Services
2) By Deployment Mode: Cloud-Based, On-Premises
3) By Application: Medical Imaging, Pathology, Genomics, Drug Discovery, Other Applications
4) By End-User: Hospitals, Diagnostic Laboratories, Research Institutes, Other End-Users

Subsegments:
1) By Software: Diagnostic Imaging Software, Pathology Analysis Software, Genomic Data Analysis Software
2) By Hardware: Storage Devices, Networking Devices, Diagnostic Imaging Equipment
3) By Services: Deployment And Integration Services, Training And Education Services, Consulting Services

View the full deep learning in diagnostics market report:
https://www.thebusinessresearchcompany.com/report/deep-learning-in-diagnostics-global-market-report

Deep Learning In Diagnostics Market Regional Insights
In the Deep Learning In Diagnostics Global Market Report 2025, North America emerged as the dominant region in 2024. The region projected to experience the swiftest growth is Asia-Pacific. The report encompasses various regions including Asia-Pacific, Western Europe, Eastern Europe, North America, South America, Middle East, and Africa.

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