

Global AI-based Medical Diagnostic Tools Market Size study, by Component (Software, Services, Hardware), by Application (Radiology, Cardiology, Neurology, Oncology, Others), by End-user (Hospitals, Diagnostic Laboratories, Others), and Regional Forecasts 2022-2032

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Abstracts

Global AI-based Medical Diagnostic Tools Market is valued approximately at USD 1.3 billion in 2023 and is anticipated to grow with a healthy growth rate of more than 20.8% over the forecast period 2024-2034. AI-based Medical Diagnostic Tools tools leverage advanced algorithms and machine learning techniques to analyze medical data, such as imaging scans, lab results, and patient histories, to provide accurate and timely diagnoses. AI-powered systems in diagnostics provide precise and efficient diagnoses, enabling healthcare personnel to devise adequate and timely treatment plans. The AI-based medical diagnostic tools market is a rapidly growing sector that focuses on utilizing artificial intelligence (AI) to enhance the accuracy, efficiency, and effectiveness of medical diagnoses. These tools employ sophisticated machine learning algorithms and data analytics to process and interpret vast amounts of medical data, including imaging scans (such as X-rays, MRIs, and CT scans), pathology slides, genetic information, and electronic health records (EHRs). By analyzing patterns and anomalies in the data, AI-based diagnostic tools can assist healthcare professionals in identifying diseases and conditions more quickly and accurately than traditional methods.

Companies operating in the AI-based medical diagnostic tools market are focusing on developing non-invasive, AI-based diagnostic tools that facilitate precise brain tumor diagnosis. Additionally, they are exploring the incorporation of AI-based remote medical devices for elderly nursing care services. Such AI-based clinical insights modules help

doctors diagnose ailments even from a distance. The healthcare vertical is increasingly integrating AI-powered solutions in medical diagnostics to achieve higher clinical and operational outcomes, driven by the rising incidence of chronic diseases, which accelerates the demand for innovative, automated processes. The increase in the number of investors funding AI start-ups, particularly for revolutionizing medical diagnostics, is significantly contributing to the growth of the AI-based medical diagnostic tools market. However, data privacy concerns, high costs, lack of standardized protocols are hampering the market growth over the forecast period 2024-2032

The key regions considered for the Global AI-based Medical Diagnostic Tools Market study include Asia Pacific, North America, Europe, Latin America, and Middle East and Africa. In 2023, North America dominated the market due to the rising incidence of cancer in the U.S. and the proactive implementation of strategic initiatives by market players. For instance, Roche launched three AI-based, deep learning image analysis Research Use Only (RUO) algorithms for breast cancer in December 2021. The Asia Pacific region is expected to grow steadily from 2024 to 2034, driven by a favorable regulatory environment, foreign investments, and government initiatives promoting awareness and timely treatment of diseases.

Major market players included in this report are:

Microsoft Corporation

Nvidia Corporation

Merative L.P.

Alphabet, Inc

Intel Corporation

Siemens Healthineers

GE HealthCare

Advanced Micro Devices, Inc.

Koninklijke Philips N.V.

InformAI

Zebra Medical Vision Ltd.

Aidoc Medical Ltd.

Viz.ai, Inc.

Arterys Inc.

Tempus Labs, Inc.

The detailed segments and sub-segment of the market are explained below:

By Component:

Software

Services

Hardware

Memory

Others

By Application:

Radiology

Cardiology

Neurology

Oncology

Others

By End-user:

Hospitals

Diagnostic Laboratories

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

RoMEA

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

Contents

CHAPTER 1. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET EXECUTIVE SUMMARY

- 1.1. Global AI-based Medical Diagnostic Tools Market Size & Forecast (2022-2032)
- 1.2. Regional Summary
- 1.3. Segmental Summary
 - 1.3.1. By Component
 - 1.3.2. By Application
 - 1.3.3. By End-user
- 1.4. Key Trends
- 1.5. Recession Impact
- 1.6. Analyst Recommendation & Conclusion

CHAPTER 2. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET DEFINITION AND RESEARCH ASSUMPTIONS

- 2.1. Research Objective
- 2.2. Market Definition
- 2.3. Research Assumptions
 - 2.3.1. Inclusion & Exclusion
 - 2.3.2. Limitations
 - 2.3.3. Supply Side Analysis
 - 2.3.3.1. Availability
 - 2.3.3.2. Infrastructure
 - 2.3.3.3. Regulatory Environment
 - 2.3.3.4. Market Competition
 - 2.3.3.5. Economic Viability (Consumer's Perspective)
 - 2.3.4. Demand Side Analysis
 - 2.3.4.1. Regulatory frameworks
 - 2.3.4.2. Technological Advancements
 - 2.3.4.3. Environmental Considerations
 - 2.3.4.4. Consumer Awareness & Acceptance
- 2.4. Estimation Methodology
- 2.5. Years Considered for the Study
- 2.6. Currency Conversion Rates

CHAPTER 3. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET

Global AI-based Medical Diagnostic Tools Market Size study, by Component (Software, Services, Hardware), by Ap...

DYNAMICS

3.1. Market Drivers

- 3.1.1. Higher Funding for AI Start-ups
- 3.1.2. Increase in Integration of AI into Imaging Devices
- 3.1.3. Dearth of In-Person Care Providers

3.2. Market Challenges

- 3.2.1. High Cost of AI-based Diagnostic Tools
- 3.2.2. Data Privacy and Security Concerns

3.3. Market Opportunities

- 3.3.1. Technological Advancements in AI
- 3.3.2. Government Initiatives Promoting AI Adoption
- 3.3.3. Increasing Adoption of AI in Emerging Markets

CHAPTER 4. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET INDUSTRY ANALYSIS

4.1. Porter's 5 Force Model

- 4.1.1. Bargaining Power of Suppliers
- 4.1.2. Bargaining Power of Buyers
- 4.1.3. Threat of New Entrants
- 4.1.4. Threat of Substitutes
- 4.1.5. Competitive Rivalry
- 4.1.6. Futuristic Approach to Porter's 5 Force Model
- 4.1.7. Porter's 5 Force Impact Analysis

4.2. PESTEL Analysis

- 4.2.1. Political
- 4.2.2. Economical
- 4.2.3. Social
- 4.2.4. Technological
- 4.2.5. Environmental
- 4.2.6. Legal

4.3. Top investment opportunity

4.4. Top winning strategies

4.5. Disruptive Trends

4.6. Industry Expert Perspective

4.7. Analyst Recommendation & Conclusion

CHAPTER 5. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET SIZE &

FORECASTS BY COMPONENT 2022-2032

5.1. Segment Dashboard

5.2. Global AI-based Medical Diagnostic Tools Market: Component Revenue Trend Analysis, 2022 & 2032 (USD Billion)

5.2.1. Software

5.2.2. Services

5.2.3. Hardware

5.2.3.1. Memory

5.2.3.2. Others

CHAPTER 6. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET SIZE & FORECASTS BY APPLICATION 2022-2032

6.1. Segment Dashboard

6.2. Global AI-based Medical Diagnostic Tools Market: Application Revenue Trend Analysis, 2022 & 2032 (USD Billion)

6.2.1. Radiology

6.2.2. Cardiology

6.2.3. Neurology

6.2.4. Oncology

6.2.5. Others

CHAPTER 7. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET SIZE & FORECASTS BY END-USER 2022-2032

7.1. Segment Dashboard

7.2. Global AI-based Medical Diagnostic Tools Market: End-user Revenue Trend Analysis, 2022 & 2032 (USD Billion)

7.2.1. Hospitals

7.2.2. Diagnostic Laboratories

7.2.3. Others

CHAPTER 8. GLOBAL AI-BASED MEDICAL DIAGNOSTIC TOOLS MARKET SIZE & FORECASTS BY REGION 2022-2032

8.1. North America AI-based Medical Diagnostic Tools Market

8.1.1. U.S. AI-based Medical Diagnostic Tools Market

8.1.1.1. Component breakdown size & forecasts, 2022-2032

- 8.1.1.2. Application breakdown size & forecasts, 2022-2032
- 8.1.1.3. End-user breakdown size & forecasts, 2022-2032
- 8.1.2. Canada AI-based Medical Diagnostic Tools Market
- 8.2. Europe AI-based Medical Diagnostic Tools Market
 - 8.2.1. U.K. AI-based Medical Diagnostic Tools Market
 - 8.2.2. Germany AI-based Medical Diagnostic Tools Market
 - 8.2.3. France AI-based Medical Diagnostic Tools Market
 - 8.2.4. Spain AI-based Medical Diagnostic Tools Market
 - 8.2.5. Italy AI-based Medical Diagnostic Tools Market
 - 8.2.6. Rest of Europe AI-based Medical Diagnostic Tools Market
- 8.3. Asia-Pacific AI-based Medical Diagnostic Tools Market
 - 8.3.1. China AI-based Medical Diagnostic Tools Market
 - 8.3.2. India AI-based Medical Diagnostic Tools Market
 - 8.3.3. Japan AI-based Medical Diagnostic Tools Market
 - 8.3.4. Australia AI-based Medical Diagnostic Tools Market
 - 8.3.5. South Korea AI-based Medical Diagnostic Tools Market
 - 8.3.6. Rest of Asia Pacific AI-based Medical Diagnostic Tools Market
- 8.4. Latin America AI-based Medical Diagnostic Tools Market
 - 8.4.1. Brazil AI-based Medical Diagnostic Tools Market
 - 8.4.2. Mexico AI-based Medical Diagnostic Tools Market
 - 8.4.3. Rest of Latin America AI-based Medical Diagnostic Tools Market
- 8.5. Middle East & Africa AI-based Medical Diagnostic Tools Market
 - 8.5.1. Saudi Arabia AI-based Medical Diagnostic Tools Market
 - 8.5.2. South Africa AI-based Medical Diagnostic Tools Market
 - 8.5.3. Rest of Middle East & Africa AI-based Medical Diagnostic Tools Market

CHAPTER 9. COMPETITIVE INTELLIGENCE

- 9.1. Key Company SWOT Analysis
 - 9.1.1. Company
 - 9.1.2. Company
 - 9.1.3. Company
- 9.2. Top Market Strategies
- 9.3. Company Profiles
 - 9.3.1. Microsoft Corporation
 - 9.3.1.1. Key Information
 - 9.3.1.2. Overview
 - 9.3.1.3. Financial (Subject to Data Availability)
 - 9.3.1.4. Product Summary

- 9.3.1.5. Market Strategies
- 9.3.2. Nvidia Corporation
- 9.3.3. Merative L.P.
- 9.3.4. Alphabet, Inc.
- 9.3.5. Intel Corporation
- 9.3.6. Siemens Healthineers
- 9.3.7. GE HealthCare
- 9.3.8. Advanced Micro Devices, Inc.
- 9.3.9. Koninklijke Philips N.V.
- 9.3.10. InformAI
- 9.3.11 Zebra Medical Vision Ltd.
- 9.3.12 Aidoc Medical Ltd.
- 9.3.13 Viz.ai, Inc.
- 9.3.14 Arterys Inc.
- 9.3.15 Tempus Labs, Inc.

CHAPTER 10. RESEARCH PROCESS

- 10.1. Research Process
 - 10.1.1. Data Mining
 - 10.1.2. Analysis
 - 10.1.3. Market Estimation
 - 10.1.4. Validation
 - 10.1.5. Publishing
- 10.2. Research Attributes

List Of Tables

LIST OF TABLES

TABLE 1. Global AI-based Medical Diagnostic Tools market, report scope

TABLE 2. Global AI-based Medical Diagnostic Tools market estimates & forecasts by Region 2022-2032 (USD Billion)

TABLE 3. Global AI-based Medical Diagnostic Tools market estimates & forecasts by Component 2022-2032 (USD Billion)

TABLE 4. Global AI-based Medical Diagnostic Tools market estimates & forecasts by Application 2022-2032 (USD Billion)

TABLE 5. Global AI-based Medical Diagnostic Tools market estimates & forecasts by End-user 2022-2032 (USD Billion)

TABLE 6. Global AI-based Medical Diagnostic Tools market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 7. Global AI-based Medical Diagnostic Tools market by region, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 8. Global AI-based Medical Diagnostic Tools market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 9. Global AI-based Medical Diagnostic Tools market by region, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 10. Global AI-based Medical Diagnostic Tools market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 11. Global AI-based Medical Diagnostic Tools market by region, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 12. Global AI-based Medical Diagnostic Tools market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 13. Global AI-based Medical Diagnostic Tools market by region, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 14. Global AI-based Medical Diagnostic Tools market by segment, estimates & forecasts, 2022-2032 (USD Billion)

TABLE 15. U.S. AI-based Medical Diagnostic Tools market estimates & forecasts, 2022-2032 (USD Billion)

TABLE 16. U.S. AI-based Medical Diagnostic Tools market estimates & forecasts by segment 2022-2032 (USD Billion)

TABLE 17. U.S. AI-based Medical Diagnostic Tools market estimates & forecasts by segment 2022-2032 (USD Billion)

TABLE 18. Canada AI-based Medical Diagnostic Tools market estimates & forecasts, 2022-2032 (USD Billion)

TABLE 19. Canada AI-based Medical Diagnostic Tools market estimates & forecasts by segment 2022-2032 (USD Billion)

TABLE 20. Canada AI-based Medical Diagnostic Tools market estimates & forecasts by segment 2022-2032 (USD Billion)

.....

This list is not complete; the final report contains more than 100 tables. The list may be updated in the final deliverable.

List Of Figures

LIST OF FIGURES

- FIG 1. Global AI-based Medical Diagnostic Tools market, research methodology
- FIG 2. Global AI-based Medical Diagnostic Tools market, market estimation techniques
- FIG 3. Global market size estimates & forecast methods.
- FIG 4. Global AI-based Medical Diagnostic Tools market, key trends 2023
- FIG 5. Global AI-based Medical Diagnostic Tools market, growth prospects 2022-2032
- FIG 6. Global AI-based Medical Diagnostic Tools market, porters 5 force model
- FIG 7. Global AI-based Medical Diagnostic Tools market, PESTEL analysis
- FIG 8. Global AI-based Medical Diagnostic Tools market, value chain analysis
- FIG 9. Global AI-based Medical Diagnostic Tools market by segment, 2022 & 2032 (USD Billion)
- FIG 10. Global AI-based Medical Diagnostic Tools market by segment, 2022 & 2032 (USD Billion)
- FIG 11. Global AI-based Medical Diagnostic Tools market by segment, 2022 & 2032 (USD Billion)
- FIG 12. Global AI-based Medical Diagnostic Tools market by segment, 2022 & 2032 (USD Billion)
- FIG 13. Global AI-based Medical Diagnostic Tools market by segment, 2022 & 2032 (USD Billion)
- FIG 14. Global AI-based Medical Diagnostic Tools market, regional snapshot 2022 & 2032
- FIG 15. North America AI-based Medical Diagnostic Tools market 2022 & 2032 (USD Billion)
- FIG 16. Europe AI-based Medical Diagnostic Tools market 2022 & 2032 (USD Billion)
- FIG 17. Asia pacific AI-based Medical Diagnostic Tools market 2022 & 2032 (USD Billion)
- FIG 18. Latin America AI-based Medical Diagnostic Tools market 2022 & 2032 (USD Billion)
- FIG 19. Middle East & Africa AI-based Medical Diagnostic Tools market 2022 & 2032 (USD Billion)
- FIG 20. Global AI-based Medical Diagnostic Tools market, company market share analysis (2023)

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This list is not complete; the final report contains more than 50 figures. The list may be updated in the final deliverable.

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