+357 96 030922
info@marketpublishers.com

Artificial Intelligence (AI) in Medical Imaging Market Forecasts to 2032 – Global Analysis By Imaging Modality (X-Ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Positron Emission Tomography (PET), Mammography and Other Imaging Modalities), AI Type (Machine Learning, Deep Learning, Natural Language Processing (NLP) and Computer Vision), Clinical Area, Deployment Model, Component, Application, End User and By Geography

https://marketpublishers.com/r/A500F50908F3EN.html
Date: July 2025
Pages: 150
Price: US$ 4,150.00 (Single User License)
ID: A500F50908F3EN

Abstracts

According to Stratistics MRC, the Global Artificial Intelligence (AI) in Medical Imaging Market is accounted for $1.97 billion in 2025 and is expected to reach $8.81 billion by 2032 growing at a CAGR of 23.8% during the forecast period. Artificial Intelligence (AI) in medical imaging involves leveraging advanced computational models to evaluate and interpret visual healthcare data. By applying machine learning and deep learning techniques, AI enhances the precision of image-based diagnostics while minimizing human oversight. It enables automated analysis of modalities like MRI, CT scans, and X-rays, facilitating early disease detection and diagnostic consistency. The technology contributes to improved image resolution, supports predictive insights, and streamlines radiology workflows to assist clinicians in making more informed decisions.

According to The Lancet Digital Health, AI systems achieved diagnostic accuracy comparable to expert radiologists, with pooled sensitivity of 87% and specificity of 92% across over 31,000 medical imaging cases. According to the same meta-analysis, AI

+357 96 030922
info@marketpublishers.com

also significantly reduced image interpretation time.

Market Dynamics:

Driver:

Rising burden of chronic diseases and demand for early diagnosis

The increasing prevalence of chronic ailments such as cardiovascular conditions, cancer, and neurological disorders has heightened the need for prompt and accurate diagnostic tools. AI-powered medical imaging enhances the detection of anomalies at early stages, allowing for timely intervention and improved treatment outcomes. Healthcare providers are increasingly integrating AI to augment radiological assessments and streamline diagnostic workflows. Moreover AI's ability to analyze complex imaging data swiftly and precisely makes it vital in addressing long-term care challenges.

Restraint:

Data privacy, security concerns, and fragmented data governance

As AI systems rely heavily on vast medical datasets, safeguarding patient privacy has become a pressing issue. The use of cloud-based analytics and third-party platforms introduces risks related to unauthorized access and data breaches. Moreover, inconsistent governance frameworks across institutions complicate data sharing and standardization efforts. Ensuring compliance with international data protection laws adds complexity, especially when deploying AI solutions across different jurisdictions. These concerns collectively restrict the pace of AI adoption in imaging diagnostics.

Opportunity:

Expansion into new therapeutic areas and predictive analytics

AI is evolving from supporting diagnostics to enabling proactive disease management through predictive modeling. Its capabilities are extending to areas such as oncology, cardiology, and neuroimaging, facilitating deeper insights into disease progression. By recognizing subtle imaging biomarkers, AI assists clinicians in forecasting potential health risks and refining treatment plans. This broadening scope presents opportunities for developers and healthcare institutions to innovate beyond traditional imaging use

+357 96 030922
info@marketpublishers.com

cases.

Threat:

Over-reliance on AI and deskilling of radiologists

Automated systems may cause skill erosion, especially in routine diagnostic tasks. Furthermore, incorrect AI outputs due to biased or poor-quality training data can mislead clinical decisions. A lack of human oversight might increase risks in complex cases requiring nuanced judgment. The shift toward automation necessitates upskilling medical professionals to effectively collaborate with AI tools. Maintaining a balance between technology support and human expertise is essential to avoid undermining diagnostic accuracy and professional competency.

Covid-19 Impact:

The COVID-19 crisis accelerated the integration of AI in medical imaging, especially for assessing lung complications and monitoring disease progression. Lockdowns and hospital overcrowding emphasized the need for remote diagnostic solutions and automated analysis. Despite initial resource constraints, the pandemic catalyzed innovation in AI-driven imaging platforms. It also fostered acceptance among clinicians of digital diagnostic tools for respiratory assessments. As the healthcare sector pivots toward digital resilience, AI in imaging is expected to become a cornerstone of post-pandemic diagnostics.

The computed tomography (CT) segment is expected to be the largest during the forecast period

The computed tomography (CT) segment is expected to account for the largest market share during the forecast period due to its versatility in capturing high-resolution anatomical details across multiple specialties. With the integration of AI, CT scan interpretation has become faster and more accurate, enhancing diagnostic confidence. The modality is widely used for detecting tumors, vascular diseases, and trauma-related injuries. AI algorithms in CT imaging support automated segmentation, anomaly detection, and report generation.

The quantitative imaging & biomarkers segment is expected to have the highest CAGR during the forecast period

+357 96 030922
info@marketpublishers.com

Over the forecast period, the quantitative imaging & biomarkers segment is predicted to witness the highest growth rate because AI tools are now capable of extracting measurable indicators from imaging data that correlate with disease severity or response to treatment. These biomarkers support individualized patient monitoring and drug efficacy evaluation. Healthcare institutions are investing in platforms that integrate imaging biomarkers with genomic and clinical data for comprehensive analysis.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share owing to its expanding healthcare infrastructure and rapid technology adoption. Governments across countries like China, Japan, and India are promoting AI integration through policy support and public-private partnerships. Rising patient volumes and improving access to diagnostic services are contributing to regional growth. AI-driven medical imaging is being embraced to address disparities in radiologist availability and diagnostic accuracy.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR fueled by robust R&D, established healthcare networks, and favorable regulations. The region hosts numerous AI startups and academic institutions focused on developing advanced imaging algorithms. AI’s utility in streamlining clinical workflows and addressing radiologist shortages is well recognized in the U.S. and Canada. Regulatory progress in AI-enabled diagnostics supports commercialization, positioning North America as a key accelerator of global market growth.

Key players in the market

Some of the key players in Artificial Intelligence (AI) in Medical Imaging Market include Aidoc, Arterys, Avicenna.AI, Canon Medical Systems Corporation, CureMetrix, Enlitic, GE HealthCare, HeartFlow Inc., IBM Watson Health, Infervision, Lunit Inc., Philips Healthcare, Qure.ai, RadNet, Riverain Technologies, ScreenPoint Medical, Siemens Healthineers, Therapixel and Zebra Medical Vision.

Key Developments:

In June 2025, Qure.ai launches AIRA AI-powered co-pilot at the World Health Assembly. The tool aims to reduce manual workload—freeing time for direct patient care

+357 96 030922
info@marketpublishers.com

responding to the WHO’s call for improved health equity.

In May 2025, GE HealthCare unveils enterprise imaging workflow efficiency solutions, introducing a suite of digital tools to optimize imaging operations and support enterprise-level deployments.

In January 2025, Aidoc announces strategic collaboration with AWS to enhance its CARE™ Foundation Model using Amazon Web Services’ cloud and engineering scale, aiming to deliver real-time clinical AI across multiple imaging modalities.

Imaging Modalities Covered:

- X-Ray
- Computed Tomography (CT)
- Magnetic Resonance Imaging (MRI)
- Ultrasound
- Positron Emission Tomography (PET)
- Mammography
- Other Imaging Modalities

AI Types Covered:

- Machine Learning
- Deep Learning
- Natural Language Processing (NLP)
- Computer Vision

Clinical Areas Covered:

+357 96 030922
info@marketpublishers.com

Radiology

Cardiology

Neurology

Breast Screening/Breast Imaging

Oncology

Respiratory & Pulmonary

Orthopedics

Other Clinical Areas

Deployment Models Covered:

On-Premise

Cloud-based

Hybrid

Components Covered:

Software

Hardware

Services

Applications Covered:

Image analysis & Interpretation

+357 96 030922
info@marketpublishers.com

- Computer-Aided Diagnosis (CAD)
- Quantitative Imaging & Biomarkers
- Detection & Classification
- Workflow Optimization & Triage
- Other Applications

End Users Covered:

- Hospitals
- Diagnostic Imaging Centers
- Research Laboratories & Academic Institutions
- Pharmaceutical & Biotechnology Companies
- Other End Users

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK

+357 96 030922
info@marketpublishers.com

- Italy
- France
- Spain
- Rest of Europe

Asia Pacific

- Japan
- China
- India
- Australia
- New Zealand
- South Korea
- Rest of Asia Pacific

South America

- Argentina
- Brazil
- Chile
- Rest of South America

Middle East & Africa

- Saudi Arabia

+357 96 030922
info@marketpublishers.com

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

+357 96 030922
info@marketpublishers.com

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliance

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

12 GLOBAL ARTIFICIAL INTELLIGENCE (AI) IN MEDICAL IMAGING MARKET, BY GEOGRAPHY

13 KEY DEVELOPMENTS

+357 96 030922
info@marketpublishers.com

12 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Artificial Intelligence (AI) in Medical Imaging Market Forecasts to 2032 – Global Analysis By Imaging Modality (X-Ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Positron Emission Tomography (PET), Mammography and Other Imaging Modalities), AI Type (Machine Learning, Deep Learning, Natural Language Processing (NLP) and Computer Vision), Clinical Area, Deployment Model, Component, Application, End User and By Geography

Product link: https://marketpublishers.com/r/A500F50908F3EN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/A500F50908F3EN.html