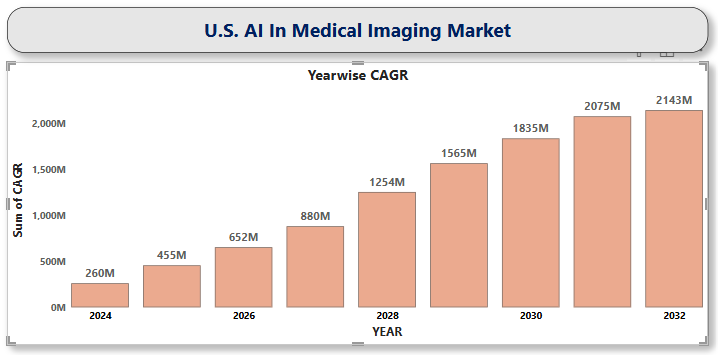
A close-up of hands holding a tablet and a pen

Description automatically generated**U.S. AI In Medical Imaging Market**

According to Intelli, the U.S. AI In Medical Imaging Market Size was valued at USD 260.8 Million in 2024 and is projected to reach USD 2,143.37million by 2032, growing at a CAGR of 30.65% from 2025 to 2032.



Artificial Intelligence (AI) is reshaping the field of medical imaging by bringing unprecedented accuracy, speed, and efficiency to the field of diagnostics. AI systems can now detect anomalies in X-rays, MRIs, CT scans, and ultrasounds with remarkable precision through harnessing the power of deep learning and computer vision. From early cancer detection to predicting disease progression, AI is not just a tool but a critically in the fight against illness. AI models can track and analyse changes over time in a scans or health records. It helps clinicians to predict how a disease might evolve. This magical system speeds up workflows, reduces human errors, and helps prioritize urgent cases, making the overall diagnostic process more effective and patient-centric.

**U.S. AI In Medical Imaging Market Definition**

The U.S. AI in Medical Imaging market refers to the sector that works on the development, integration, and application of AI technologies in medical imaging processes. The primary goal of this market is to improve diagnostic accuracy, streamline workflows, and personalize patient care. This includes utilizing advanced algorithms and machine learning techniques to enhance the analysis, interpretation, and storage of medical images from modalities such as X-rays, MRIs, CT scans, and ultrasounds. AI can detect subtle abnormalities often missed by the human eye, improving early diagnosis. The rising prevalence of chronic illnesses, coupled with increasing demand for advanced imaging technologies, is fuelling the growth of the market.

**U.S. AI In Medical Imaging Market Overview**

The U.S. AI in Medical Imaging market represents a rapidly evolving industry aimed at integrating cutting-edge AI technologies to advance medical diagnostics and patient outcomes. This growth is further supported by substantial private investments in AI-based startups and collaborative efforts across industries to enhance diagnostic accuracy and decrease the burden of growing imaging volumes. Major healthcare providers and A close-up of hands holding a tablet and a pen

Description automatically generatedtechnology giants are actively acquiring AI startups to seamlessly incorporate cutting-edge AI functionalities into their current product portfolios. The current AI in medical imaging market is expected to present extensive opportunities for businesses, especially as AI adoption accelerates across the healthcare sector, most notably within radiology. The growing disparity between the limited number of radiologists and the rapidly increasing volume of medical scans is a key factor likely to accelerate the adoption of AI in medical imaging. Emerging economies are increasingly channelling investments into AI, creating opportunities for businesses to leverage AI in medical imaging and boost their revenue share. Digital Diagnostics Inc. is a pioneer in AI-driven medical imaging, dedicated to developing cutting-edge diagnostic tools. The company leverages AI to improve the accuracy, efficiency, and overall outcomes of medical imaging across a range of healthcare applications.

**U.S. AI In Medical Imaging Market Segmentation**

The U.S. Ai In Medical Imaging Market is segmented based on technology, application, Imaging Modality, and End-Use. It reflects the diverse applications and growing consumer base.

**U.S. AI In Medical Imaging Market, By Technology**

* **Deep Learning**
* **Natural Language Processing**
* **Other**

The U.S. AI in Medical Imaging market is segmented by technology where deep learning plays a pivotal role. It is dominating the market due to its unmatched ability to analyse vast volumes of complex imaging data with high precision and speed. For example, in November 2023, OpenAI introduced its Data Partnerships initiative, collaborating with diverse organizations to develop high-quality datasets aimed at enhancing AI training and performance. This technology powers advanced image recognition, anomaly detection, and pattern analysis, significantly enhancing diagnostic accuracy. On the other hand, Natural Language Processing segment is projected to witness the highest CAGR during the forecast period, driven by its powerful ability to convert unstructured text into meaningful, actionable insights. By extracting and analysing data from sources such as medical records and radiology reports, NLP enhances workflow efficiency and supports more informed A close-up of hands holding a tablet and a pen

Description automatically generatedclinical decision-making. The "Other" category, including machine learning and computer vision techniques, continues to contribute to innovation, offering complementary tools that broaden the capabilities of AI across different imaging workflows. Together, these technologies are reshaping the landscape of medical imaging in the U.S., paving the way for faster, and more accurate, healthcare solutions.

**U.S. AI In Medical Imaging Market, By Application**

* **Neurology**
* **Cardiology**
* **Breast screening**
* **Respiratory**
* **Orthopaedics**
* **Alzheimer’s Disease**
* **Brain tumors**
* **Others**

U.S. AI In Medical Imaging Market segmentation by application is crucial for detecting the market size. Neurology represents a major application segment within the U.S. AI in Medical Imaging market, accounting for a significant share. AI aids neurologists by enhancing image interpretation accuracy, reducing diagnostic errors, and accelerating the decision-making process. It also enables real-time monitoring of disease progression and response to treatment, which is significant in managing chronic neurological conditions. As the prevalence of neurological disorders continues to rise in the U.S., the adoption of AI in this segment is expected to grow substantially. In addition, ​Cardiology is a rapidly expanding application, induced by the increasing prevalence of cardiovascular diseases and the need for more precise diagnostic tools. AI algorithms are adept at interpreting complex cardiac imaging data from modalities such as echocardiograms, cardiac MRIs, and CT scans. They help in identifying abnormalities like coronary artery disease, heart valve defects, and cardiomyopathies with greater accuracy and efficiency. The FDA had approved 46 AI-based applications for cardiac imaging, in 2023, highlighting the increasing significance of AI technology in the field of cardiology. Moreover, the integration of AI into mammography has significantly enhanced breast cancer detection. AI algorithms improve to identify malignant tumors accurately and also reduce false positives, leading to earlier interventions and better patient outcomes. For example, Google's AI technology A close-up of hands holding a tablet and a pen

Description automatically generatedhas been integrated into commercial mammography systems, showing greater accuracy and performance than conventional assessments by radiologists. AI applications in respiratory care focus on examining imaging data from chest X-rays and CT scans to detect conditions such as chronic obstructive pulmonary disease, pneumonia, and lung cancer. Furthermore, in orthopedic imaging, AI boosts the evaluation of musculoskeletal conditions by rightly interpreting various diagnostic tests. Additionally, AI technologies are enhancing the early detection and monitoring of Alzheimer’s disease by analyzing complex imaging data. Researchers are utilizing AI to identify new risk factors for Alzheimer’s by studying electronic health records, uncovering associations with conditions like osteoporosis and depression. In neuro-oncology, AI is revolutionizing brain tumor diagnosis and treatment planning. AI applications are being developed to assist in the analysis of high-grade gliomas as this precisely classifies brain tumors from MRI images, enabling more precise assessments and personalized treatment strategies.

**U.S. AI In Medical Imaging Market, By Imaging Modality**

* **Computed Tomography (CT) Scans**
* **Magnetic Resonance Imaging (MRI)**
* **X-rays**
* **Ultrasound**
* **Nuclear Imaging**

The U.S. AI in Medical Imaging market is categorized by various imaging modalities, each integrating AI to enhance diagnostic accuracy and efficiency. CT scans represent a significant segment in the AI-driven medical imaging market. The ability of AI to process complex CT data swiftly aids radiologists in making more accurate diagnoses. AI applications in MRI focus on accelerating image acquisition times and enhancing image quality. This is particularly useful in neurological and musculoskeletal imaging, where detailed visualization is significant. As one of the most commonly used imaging modalities, X-rays benefit from AI through improved detection of fractures, infections. In ultrasound imaging, AI enhances real-time image analysis, aiding in obstetric evaluations, cardiac assessments, and the detection of abdominal abnormalities. Nuclear imaging is a critical segment of medical imaging that uses small amounts of radioactive material to diagnose, determine the severity of, or treat various diseases. Increased prevalence of cancer, A close-up of hands holding a tablet and a pen

Description automatically generatedcardiovascular diseases, and neurological disorders in the U.S. is driving the demand for nuclear imaging, with AI adding significant value. AI-powered tools like deep learning algorithms help in faster and more accurate interpretation of nuclear scans like PET and SPECT. The growing geriatric population leads to higher demand for early diagnosis and non-invasive imaging, boosting AI adoption.

**U.S. AI In Medical Imaging Market, By End-users**

* **Hospitals**
* **Diagnostic Imaging Centers**
* **Others**

U.S. AI in Medical Imaging Market by End-Users, focusing on Hospitals, Diagnostic Imaging Centers, and Others. Hospitals represent the largest share of the AI in medical imaging market due to their extensive infrastructure, high patient volume. In addition, they have the ability to invest in advanced technologies due to their strong budgets for tech investments. Many hospitals are leading adopters of AI tools for MRI, CT, PET, and X-ray to enhance diagnostic accuracy. Large hospital networks and academic medical centers often run pilot projects and clinical trials using AI. Diagnostic imaging centers are rapidly adopting AI to remain competitive and improve service delivery. This category includes smaller clinics, research institutions, and specialty practices that are gradually incorporating AI into imaging for research.

**Key Players**

* The “U.S. AI In Medical Imaging Market" study report will provide valuable insight emphasizing the U.S market. The major players in the market are GE HealthCare, Microsoft, Digital Diagnostics Inc., Butterfly Network Inc., Advanced Micro Devices Inc, InformAI, Ada Health, Brainomix, Enlitic, Inc., Canon Medical Systems USA, Inc., Siemens Healthineer, Philips Healthcare, Arterys, Paige AI, Nanox Imaging, EchoNous, Therapixel, CellmatiQ, Ultromics among others. Our market analysis also entails a section solely dedicated to such major players wherein our analysts provide an insight into the financial statements of all the major players, along with product benchmarking and SWOT analysis.

**Key Developments**

* A close-up of hands holding a tablet and a pen

  Description automatically generatedIn November 2024, the U.S. FDA authorized Icobrain aria, an AI-driven MRI solution developed by Icometrix. This advanced tool is designed to identify and assess amyloid-related imaging abnormalities, a possible side effect linked to amyloid-targeting treatments.
* In March 2024, Philips announced cutting-edge enhancements to its AI-powered MRI and CT scanner technologies, aimed at boosting diagnostic accuracy and efficiency.

**Market Attractiveness**

The image of market attractiveness provided further helps to get information about the region leading in the U.S. Ai In Medical Imaging Market. We cover the major impacting factors driving the industry growth in the given region.

**Porter’s Five Forces**

The image provided would further help to get information about Porter's five forces framework providing a blueprint for understanding the behavior of competitors and a player's strategic positioning in the respective industry. Porter's five forces model can be used to assess the competitive landscape in the U.S. Ai In Medical Imaging Market, gauge the attractiveness of a particular sector, and assess investment possibilities.

TABLE OF CONTENT

1 **INTRODUCTION OF U.S. AI IN MEDICAL IMAGING MARKET**

* 1. Overview of the market
  2. Scope of report
  3. Assumptions

1. **EXECUTIVE SUMMARY**
2. **RESEARCH METHODOLOGY**
   1. Data Mining
   2. Validation
   3. Primary Interviews
   4. List of Data sources
3. **U.S. AI IN MEDICAL IMAGING MARKET OUTLOOK**
   1. Overview
   2. Market Dynamics
      1. Drivers
      2. Restrains
      3. Opportunities
      4. Trends
   3. Portes Five FORCE Model
   4. Value Chain Analysis

**5 U.S. AI IN MEDICAL IMAGING MARKET, BY TECHNOLOGY**

A close-up of hands holding a tablet and a pen

Description automatically generated5.1 Overview

A close-up of hands holding a tablet and a pen

Description automatically generated5.2 Deep Learning

5.3 Natural Language Processing

5.4 Other

**6 U.S. AI IN MEDICAL IMAGING MARKET, BY APPLICATION**

6.1 Overview

6.2 Neurology

6.3 Cardiology

6.4 Breast screening

6.5 Respiratory

* 1. Orthopaedics

6.7 Alzheimer’s Disease

6.8 Brain tumors

6.9 Others

**7 U.S. AI IN MEDICAL IMAGING MARKET, BY IMAGING MODALITY**

7.1 Overview

7.2 Computed Tomography (CT) Scans

7.3 Magnetic Resonance Imaging (MRI)

7.4 X-rays

7.5 Ultrasound

7.6 Nuclear Imaging

**8 U.S. AI IN MEDICAL IMAGING MARKET, BY END-USERS**

8.1 Overview

8.2 Hospitals

A close-up of hands holding a tablet and a pen

Description automatically generated 8.3 Diagnostic Imaging Centers

A close-up of hands holding a tablet and a pen

Description automatically generated

**9 U.S. AI IN MEDICAL IMAGING MARKET COMPETITIVE LANDSCAPE**

9.1 Overview

9.2 Company Market Ranking

9.3 Key Developments Strategies

1. **COMPANY PROFILES**
   1. **GE HealthCare**
      1. Overview
      2. Financial Performance
      3. Product Outlook
      4. Key developments
   2. **Microsoft**
      1. Overview
      2. Financial Performance
      3. Product Outlook
      4. Key developments
   3. **Digital Diagnostics Inc.**
      1. Overview
      2. Financial Performance

10.3.3 Product Outlook

10.3.4 Key developments

* 1. **Butterfly Network Inc.**
     1. Overview
     2. A close-up of hands holding a tablet and a pen

        Description automatically generatedFinancial Performance
     3. A close-up of hands holding a tablet and a pen

        Description automatically generatedProduct Outlook
     4. Key developments
  2. **Advanced Micro Devices Inc**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  3. **InformAI**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  4. **Ada Health**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  5. **Brainomix**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments

* 1. **Enlitic, Inc.**
     1. Overview
     2. Financial Performance
     3. A close-up of hands holding a tablet and a pen

        Description automatically generatedProduct Outlook
     4. Key developments
  2. **Canon Medical Systems USA, Inc.**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  3. **Siemens Healthinee**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  4. **Philips Healthcare**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  5. **Arterys**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  6. **Paige AI**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. A close-up of hands holding a tablet and a pen

        Description automatically generatedKey developments
  7. **Nanox Imaging**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  8. **EchoNous**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  9. **Therapixel**
     1. Overview
     2. Financial Performance
     3. Product Outlook
     4. Key developments
  10. **CellmatiQ**
      1. Overview
      2. Financial Performance
      3. Product Outlook
      4. Key developments
  11. **Ultromics**
      1. Overview
      2. Financial Performance
      3. Product Outlook
      4. Key developments

A close-up of hands holding a tablet and a pen

Description automatically generated

1. **KEY DEVELOPMENTS**
   1. Product Launches/Developments
   2. Merges and Acquisitions
   3. Business Expansions
   4. Partnerships and Collaborations
2. **Appendix**

12.1 Related Research