AIMEDIC

▪ AIMedic for a better tomorrow

One of the largest marketlaces for medical image analysis in the Middle East.

About Us

The knowledge-based company and startup, AIMedic, aims to produce and develop creative products and solutions in the field of medicine through artificial intelligence. It was founded by a group of graduates from top universities in Iran. This organization considers its mission to be enhancing the quality of life for people worldwide, and to achieve that, it has harnessed artificial intelligence as a tool to achieve its goals.

Challenges in Medical Images

One of the fundamental challenges in utilizing medical images is the incorrect interpretation of images by physicians. Some medical images might provide inaccurate information due to incorrect or incomplete interpretation by physicians, leading to issues for the patient. Factors such as lack of physician experience, human errors, or insufficient access to information can contribute to inaccurate image interpretation.

Lack of Physician Experience: Proper interpretation of medical images requires expertise and sufficient experience on the part of physicians. Unfortunately, due to the high costs of medical training, experienced image-diagnosing physicians might not be available in all regions and facilities, making it difficult for patients and elongating the diagnosis and treatment process.

Data Scarcity: In some instances, medical images or CT scans may suffer from data scarcity. This issue can impede accurate diagnosis, and sometimes, there might not be enough information to provide a definite diagnosis.

Lack of Consistency Among Physicians: In certain cases, physicians might hold differing opinions regarding image interpretation. Each physician might draw conclusions based on their individual experience, knowledge, and perspective. This disparity can lead to incorrect interpretations and differences in diagnosis.

Our Solution: Artificial Intelligence

Given these challenges and the existence of a powerful new tool called Artificial Intelligence (AI), we have endeavored to reduce these issues as much as possible by training a capable model in the field of medical image diagnosis. We aim to assist radiologists as a Clinical Decision Support (CDS) system. In the following, we will outline several benefits of artificial intelligence in disease diagnosis.

High Accuracy / High Speed / Ability to Analyze Large Volumes of Data / Aid in Decision-Making / Access to Remote Areas / Increased Healthcare System

In summary, the utilization of artificial intelligence in disease diagnosis through medical images offers numerous advantages including high accuracy, high speed, the ability to analyze large volumes of data, aid in decision-making, access to remote areas, and increased efficiency in the healthcare system. By integrating artificial intelligence with the knowledge and experience of medical professionals, improvements in disease diagnosis, treatment, and overall public health can be achieved.

- Integration with existing hospital PACS systems.
- Wide coverage of medical images including brain CT scans, mammography, and more.
- Capability to diagnose complex conditions like MLS fractures.
- Advanced artificial intelligence algorithms.
- High precision in simultaneous image inspection and analysis.
- Intelligent reporting of both image and text-based information.

DATA COLLECTION

DATA ANALYSIS

MODEL TRAINING & EVALUATION

DATA LABELING

MODELDEPLOYMENT

MODELMONITORING

MONETIZATION

MAINTENANCE & IMPROVEMENTS

MammoGraphy AIMedic

CT-BrainAIMedic

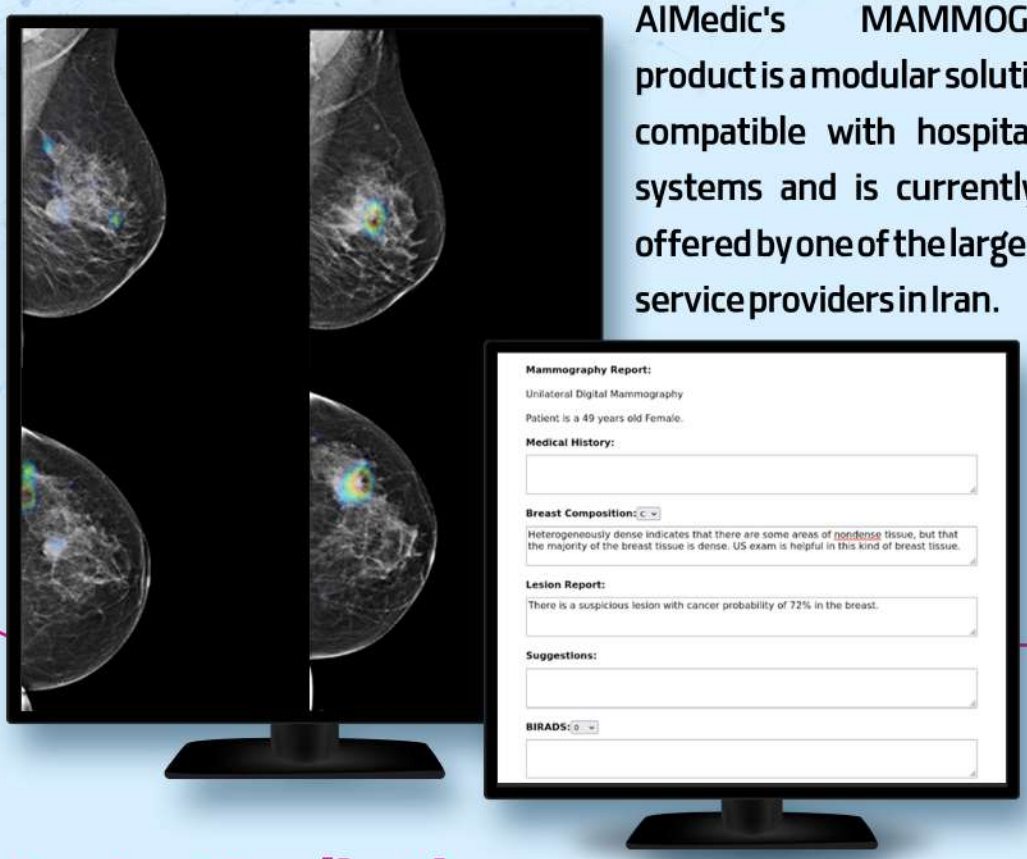
COMING SOON

COMING SOON

Our Products and Services

MAMMOGRAPHY AIMedic

This product has been developed for the analysis and automated report generation of mammography images and serves as an assistant to radiologists in achieving more accurate breast cancer diagnoses. AIMedic's MAMMOGRAPHY product is a modular solution fully compatible with hospital PACS systems and is currently being offered by one of the largest PACS service providers in Iran.



Product Applications

- Provides reports along with images of breast lesions.
- Enables rapid and highly accurate diagnosis of diseases and conditions that demand both speed and precision.
- Facilitates early and timely detection of breast cancer, a critical aspect that can potentially save lives.
- Enhances workflow in patient care and treatment (optimizing the process from patient admission to treatment execution).
- Reduces medical errors and the likelihood of potential individual errors in patient treatment.
- Decreases costs associated with delayed diagnosis.
- Saves time and unforeseen costs for hospitals and healthcare staff, including physicians, while improving the healthcare system.

Model	AUC	Precision	Recall
Cancer Detection	0.92	0.27	0.92
Breast composition	0.90	--	--

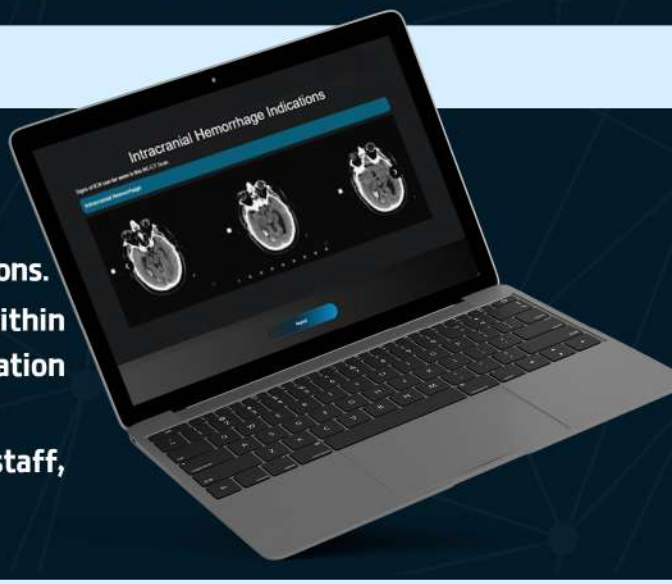
CT-Brain AIMedic

This product has been developed for the analysis and automated report generation of medical CT scan images, specifically focusing on brain scans. It serves as an assistant to radiologists in achieving the most accurate diagnosis of brain abnormalities. AIMedic's CT-Brain product is a modular solution fully compatible with hospital PACS systems and is currently being offered by one of the largest PACS service providers in Iran.

Product Applications

- Provides reports along with images of brain abnormalities.
- Enables rapid and highly accurate diagnosis of diseases and conditions that demand both speed and precision, such as various types of brain strokes (ischemic, hemorrhagic, etc.).
- Facilitates early and timely detection of diseases, especially for conditions that require prompt diagnosis.
- Enhances workflow in patient care and treatment (optimizing the process from patient admission to treatment execution for individuals with brain strokes).
- Reduces medical errors and the likelihood of potential individual errors in patient treatment.

- Decreases costs associated with delayed diagnosis.
- Offers diagnostic and practical tools to physicians for more accurate diagnoses, such as precise volume calculation of brain lesions.
- Increases consistency across various departments within healthcare centers and aids in cost-effective and efficient utilization of resources (such as workflow improvement projects).
- Saves time and unforeseen costs for hospitals and healthcare staff, including physicians, while improving the healthcare system.



Algorithm	Sensitivity	Specificity
hyper-dense	0.914	0.828
hypo-dense	0.92	0.771
ICH	0.958	0.975

Detection Accuracy

Algorithm	Dice
hyper-dense	0.668
hypo-dense	0.525

Coming Soon...

Active Centers

1 | Mazandaran: 3 center

2 | Hamedan: 2 center

3 | Qom: 7 center

AImedic AI solution service prices 2023

request/year	0-5000	5000-10000	10000-25000	>25000
Per study	0.5$	0.44$	0.33$	0.3$

- Improvement updates are done every 3 month.
- Stable and fast internet bandwidth is necessary.
- Requests are responded under 30 seconds.
- Installation fee is free of charge.
- Educational fee is free of charge.

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Iran Almas Complex, Farda Technology Park, Ground Floor,
Niroye Zamin Boulevard, Babaei Highway, Tehran, Iran

www.aimedic.co support@aimedic.com

+9821-91065160 +9890 354 4123

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