

Neuro AI Cancer Detector

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Lead Innovator



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Developing AI solutions for critical healthcare challenges. This project aims to bridge the gap between advanced deep learning and life-saving clinical diagnostics.



AI Researcher



Full-Stack Developer

Part 1: The Hackathon Mindset

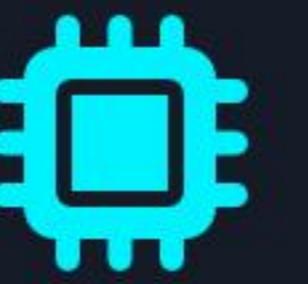
Understanding the difference between products and proofs.

Beyond Final Products



Validate

It is not a final product competition. It is a stage to show that your idea works.



Prototype

Judges don't expect hospital-level software. They expect a functional proof-of-concept.



Communicate

The goal is to translate a complex technical solution into a compelling narrative.

What Judges Really Look For

- ✓ **Clear Problem:** Identification of a real-world pain point.
- ▶ **Working Demo:** Tangible proof of the solution.
- 💬 **Explanation:** Simple articulation of complex AI logic.
- ⚡ **Confidence:** Ownership of the project and its vision.



Step 1: The Critical Problem

Why cancer detection is failing millions today.

A Race Against Time

10M+

Annual Deaths Globally

Late detection is the single largest contributor to cancer mortality. Every hour of delay reduces the chances of successful treatment.

The Bottleneck in Healthcare



Expert Shortage

Diagnosis depends on highly specialized oncologists who are often unavailable in rural sectors.



Slow Processing

Manual review of medical imaging (MRI, CT) is time-consuming and prone to human fatigue.



Lack of Access

Low-resource hospitals lack the infrastructure to provide rapid cancer screening results.

Step 2: The Neuro AI Solution

Revolutionizing diagnosis through deep learning.

Intelligent Early Detection

Introducing Neuro AI

An AI system that analyzes medical images and predicts cancer within seconds. We provide the speed of a machine with the accuracy of a specialist.

- ✓ Real-time analysis
- ✓ High-confidence scoring
- ✓ Scalable to any imaging type



Step 3: What We Built

A deep dive into the three brains of the system.

System Architecture



1. The Data

Teaching material: Thousands of labeled medical images (MRI, Histopathology).



2. The Brain

CNN Model: The core algorithm that learns features and patterns of malignancy.

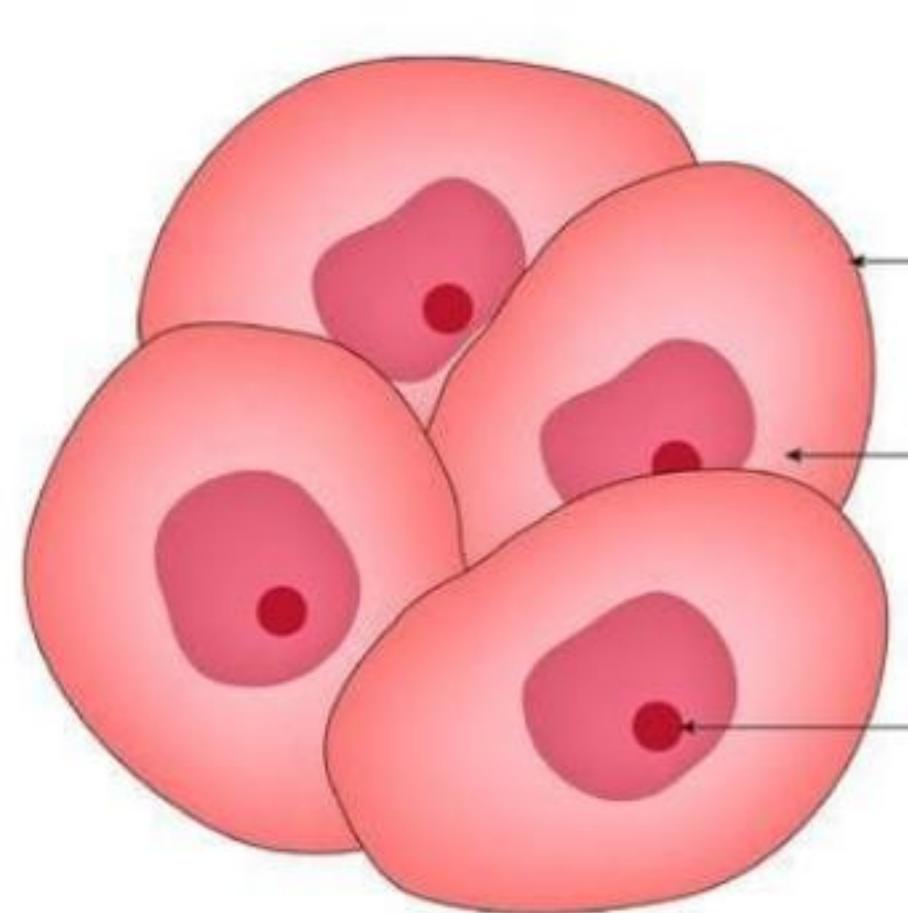


3. The Interface

Web App: The doctor-facing portal that provides results in real-time.

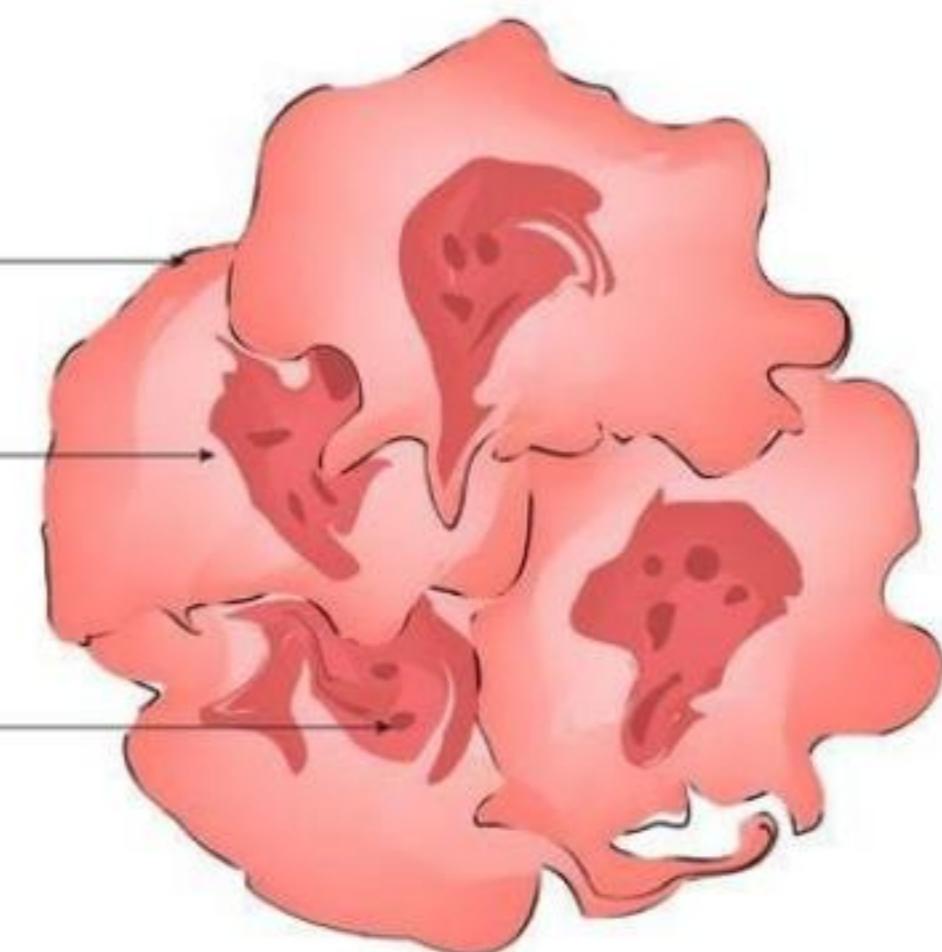
Brain 1: Teaching via Data

Normal & Cancer Cells Structure



Normal Cells

Cytoplasm
Nucleus
Nucleolus



Cancer Cells

Labeled Training Sets

We use datasets like MRI scans for brain tumors or histopathology for breast cancer. Each image acts as a lesson for the AI.

Category	Example
Class A	Malignant (Cancer)
Class B	Benign (No Cancer)

Brain 2: Convolutional Neural Net

The Pattern Explorer

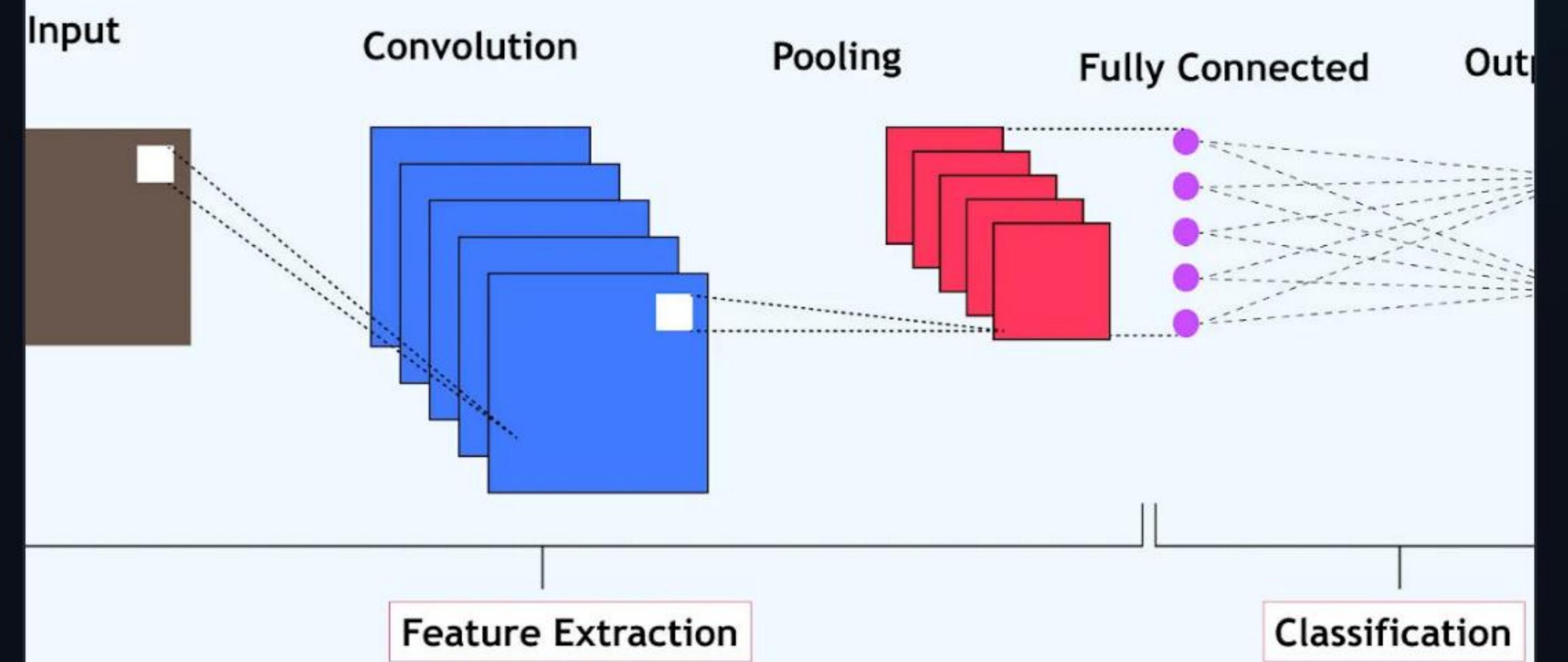
Instead of manual rules, the CNN extracts features automatically. It scans the image layer-by-layer to find anomalies.

Detects Irregular Boundaries

Analyzes Abnormal Density

Spots Texture Differences

The Architecture of Convolutional Neural Networks



How AI Sees Malignancy

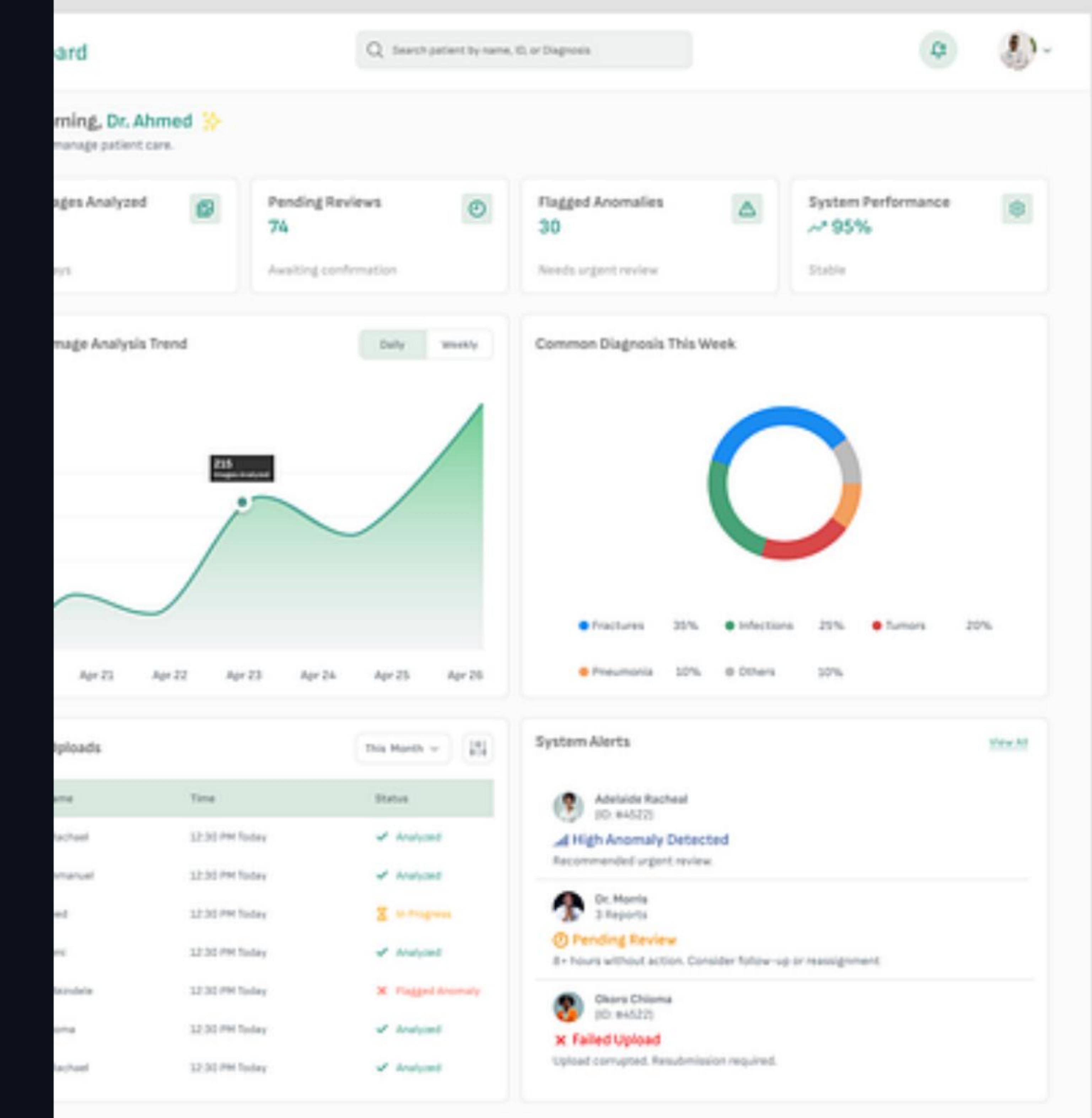
Visual Feature	Human Interpretation	AI (CNN) Interpretation
Shape	Rounded or Jagged	Edge Distribution Polygons
Color/Brightness	Darker area	Pixel intensity values
Boundaries	"It looks blurry"	Gradients & Spatial Convolutions

Brain 3: The Interface

Doctor-Centric Design

This is what the clinical staff sees. A simple, streamlined dashboard built for high-stakes environments. One click for a second opinion.

No complicated configurations. Just upload, predict, and save a life.



Working Mechanism

A step-by-step look under the hood.

The Diagnostics Timeline



1. Input

MRI scan is uploaded to the cloud.



2. Process

Image resizing and normalization.



3. Extract

CNN identifies patterns and edges.



4. Result

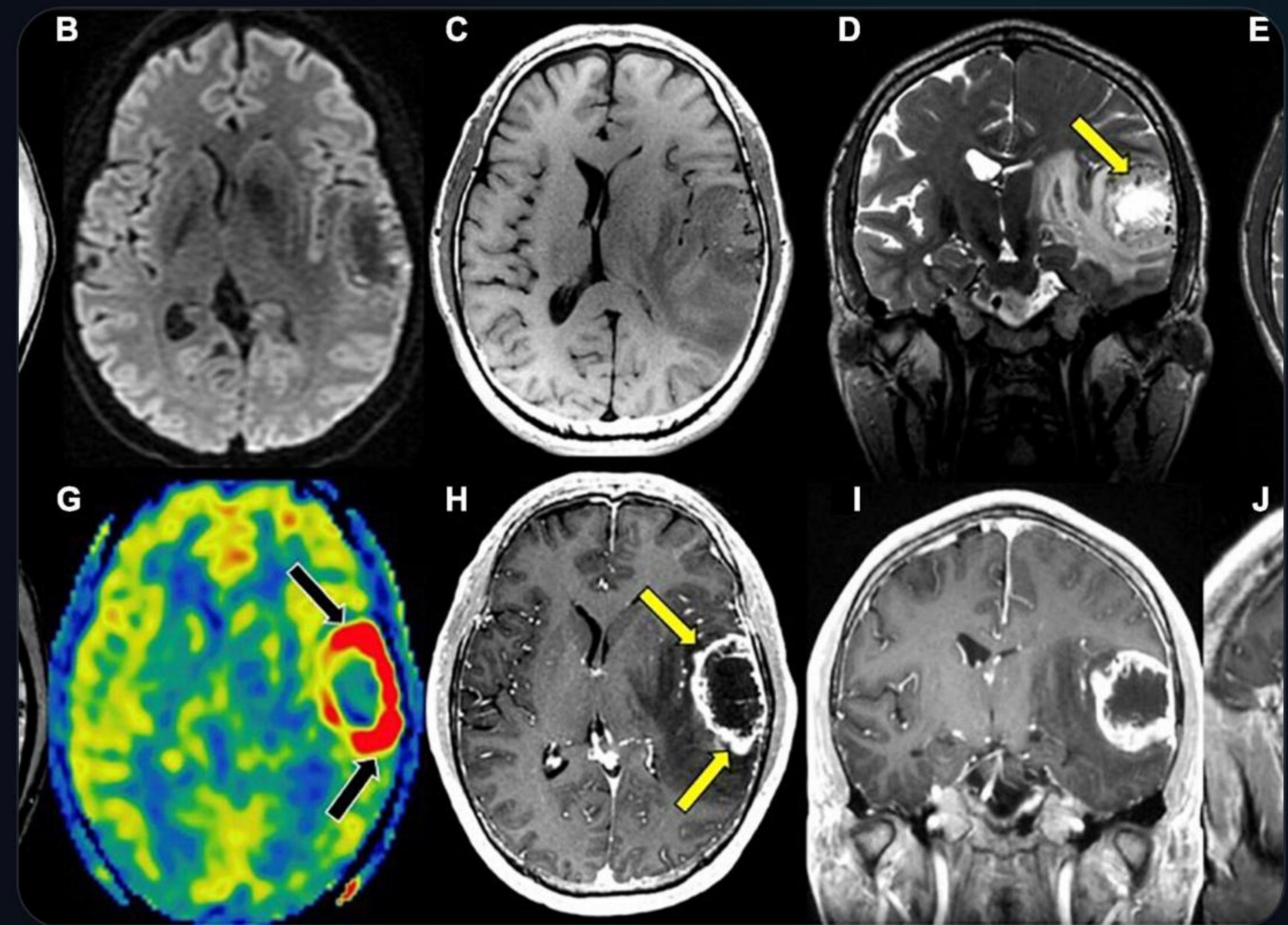
Confidence score and prediction.

Internal Logic: Preprocessing

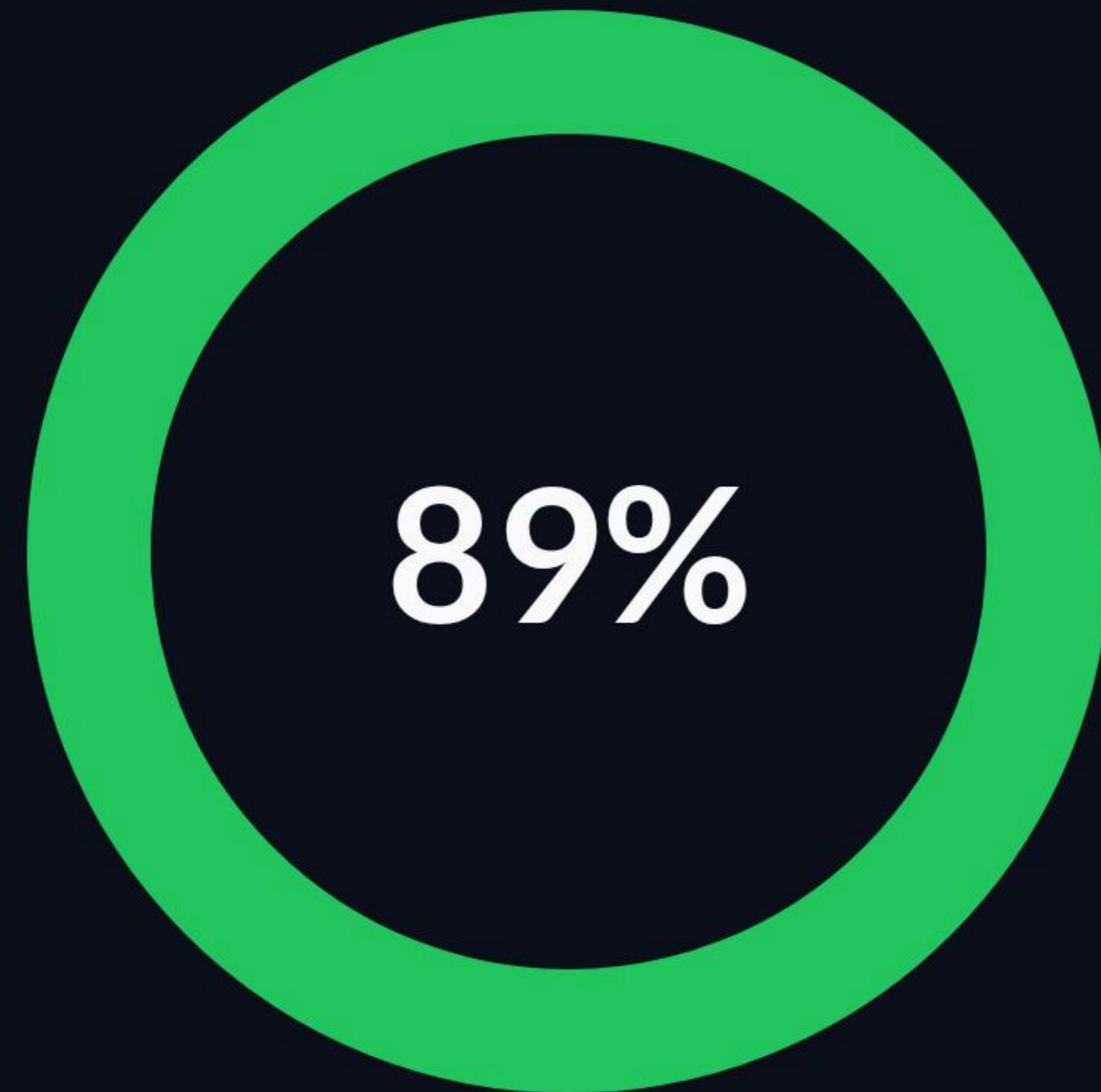
Standardizing Data

Every MRI varies in brightness. To ensure the AI learns correctly, we normalize pixel values into a uniform range.

$$x' = \frac{x - x_{\min}}{x_{\max} - x_{\min}}$$



Understanding the Score



Confidence is Key

The AI doesn't just say "Yes" or "No". It provides a probability. An 89% score tells the doctor that the AI has high conviction in its detection.

The Final Pitch Strategy

How to win the room in 180 seconds.

3-Minute Pitch Structure



Open

20s: Problem statement.



The "How"

60s: Technical logic.



Demo

60s: Proof of life.



Impact

40s: Scalability.

| Step 1: Emotional Hook

"Millions die due to late cancer detection. Rural areas lack medical experts. We aim to reduce diagnostic delay using AI."

The Core Mission

The Moment of Truth

Winning the Trust

Upload an image. Click predict. Show the judges the result. This is the most important minute of your presentation.

Show the progress bar

Highlight the confidence score

Explain what the AI detected

⚠️ Cancer Detected

91%

Recommendation: Immediate Biopsy Required

Beyond the Hackathon



Global Scale

Support doctors in remote areas with instant cloud diagnostics.



Multi-Cancer

Scale from brain tumors to lungs, skin, and breast detection.



Reduced Cost

Decrease the financial burden of prolonged diagnostic tests.

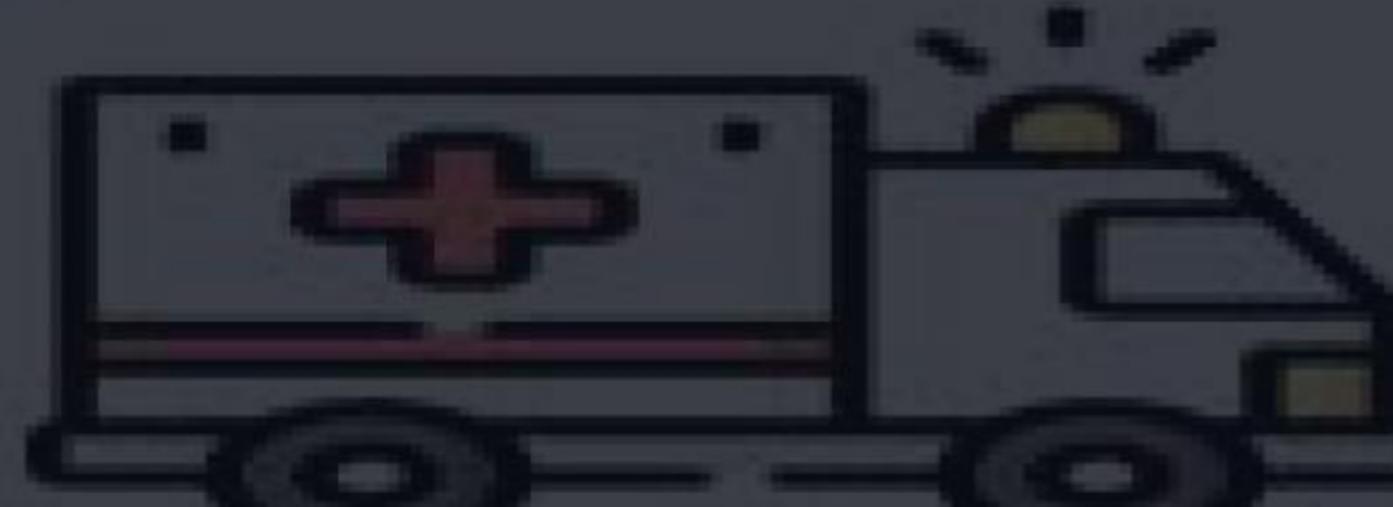
The Future of AI Healthcare

"Neuro AI Cancer Detector: Saving lives through early, accurate, and accessible diagnosis."



Smart Watch

Doctors



Ambulance



Smart Homes



Nurses

Smart Healthcare



Medical Equipment

Air Medical Service



Pha



Body Sensors

| Why This Wins

100%

Social Impact & Implementation

We combine cutting-edge tech with a clear human benefit. Clarity + Demo = Success.

Early Detection Saves Lives

Thank you for your attention.

Hafiz Muhammad Asnan Amar

Questions & Answers

Discussing the future of Neuro AI Cancer Detection.

✉ contact@asnan-amar.ai |  neuro-ai-cancer.com

Image Sources



<https://s3.eu-west-2.amazonaws.com/resumedone-eu-west-2-staging/Pqb81t4ioq-photo.webp>

Source: resume-example.com



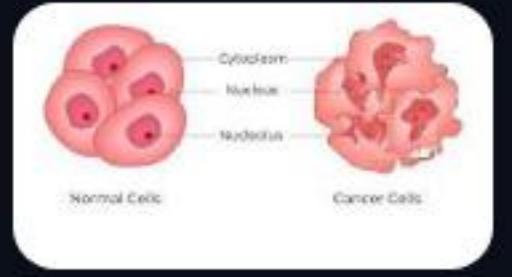
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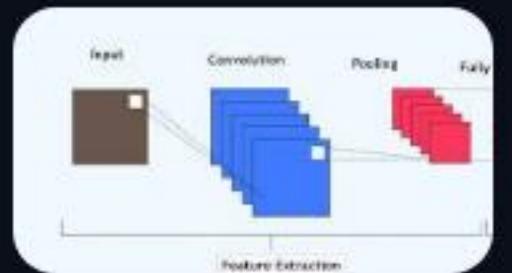
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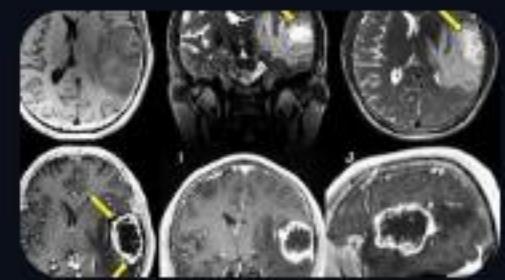
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Image Sources



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