

VGG16 loaded

Xception loaded

AI Alzheimer's Diagnostic System

VGG16 + Xception Weighted Ensemble | 78.17% Accuracy | 100% AD Sensitivity

Model Information

Validation Accuracy

78.17%

AD Sensitivity

100%

AD Precision

50%

Ensemble Configuration

VGG16: 47.7%

Xception: 52.3%

Upload MRI Scan

Choose a brain MRI image (PNG, JPG, JPEG)



Drag and drop file here
Limit 200MB per file • PNG, JPG, JPEG

Browse files

tets.jpg 4.1KB



Uploaded MRI

MRI Requirements:

- Brain scan (axial, sagittal, or coronal view)
- Grayscale or RGB format
- Clear visualization of brain structures
- Minimal artifacts or noise

Best Results: T1-weighted MRI scans with good contrast between gray/white matter.

Performance Metrics

CN Recall: 77.3%

MCI Recall: 78.3%

AD Recall: 100%

Run AI Diagnosis

Analysis Complete!

How to use:

1. Upload brain MRI scan
2. Click 'Run AI Diagnosis'
3. Review results & advice
4. Download PDF report

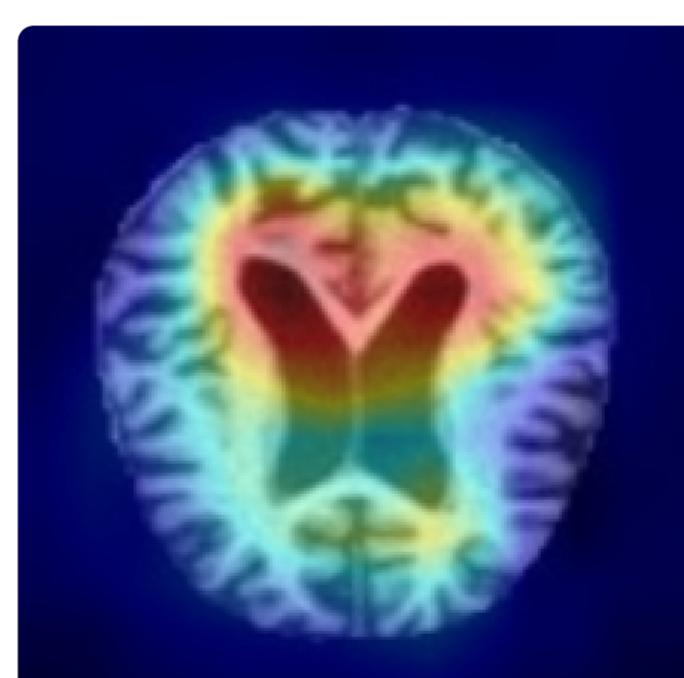
Diagnostic Results

Original MRI



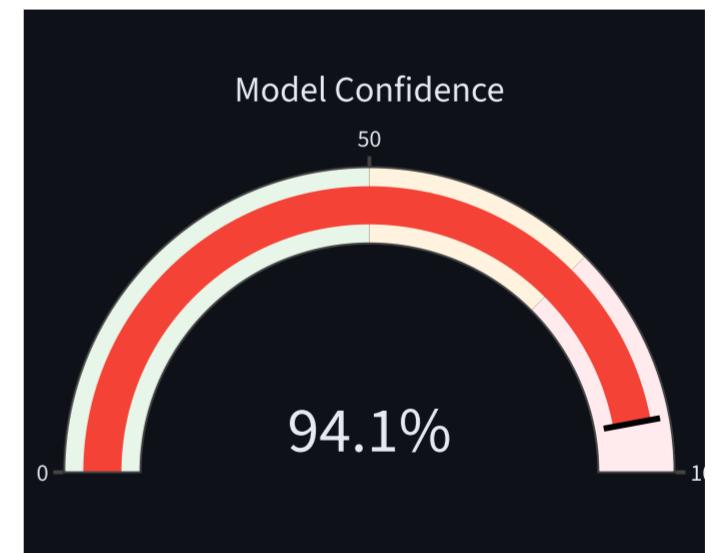
Input Scan

AI Attention Map (Grad-CAM)



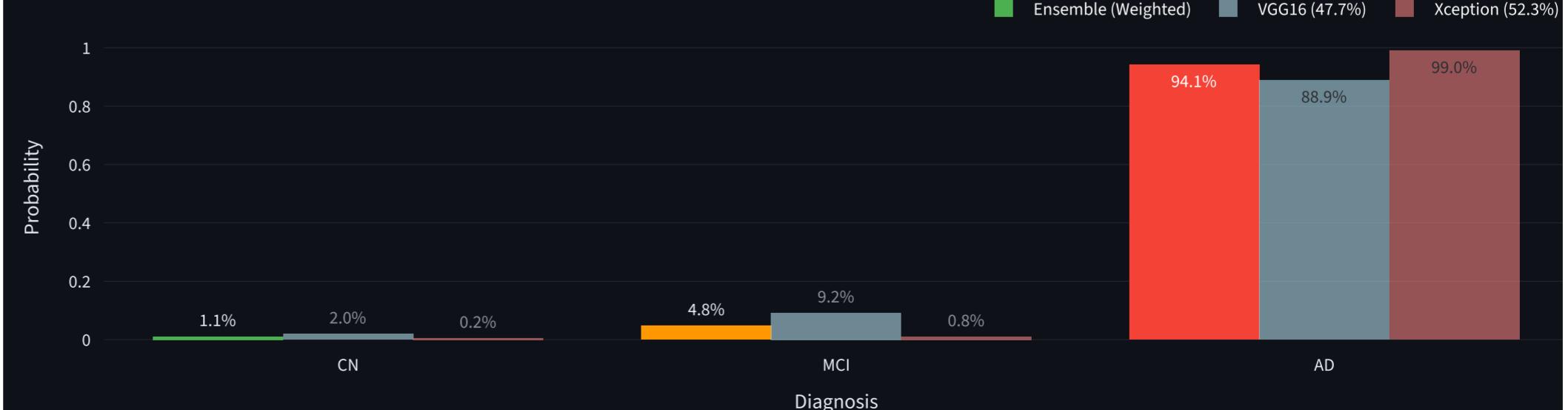
Regions influencing prediction

Model Confidence



Class Probabilities (Ensemble & Individual Models)

Ensemble (Weighted) VGG16 (47.7%) Xception (52.3%)



Diagnostic Outcome: Alzheimer's Disease (AD)

Confidence Level

High Confidence

 94.1%

 Strong imaging biomarkers detected. Consult specialist.

Clinical Recommendations

Result: Alzheimer's Disease (AD)

Confidence: 94.1%

 This AI system provides decision support and is NOT a definitive diagnosis.

Interpretation: Imaging patterns strongly associated with Alzheimer's Disease detected. The ensemble model has 100% sensitivity for AD detection.

Critical Next Steps:

-  Urgent neurologist consultation required
-  Comprehensive clinical assessment needed
-  Consider genetic counseling (APOE4 testing)
-  Discuss FDA-approved treatments:
 - Cholinesterase inhibitors (Donepezil, Rivastigmine)
 - NMDA antagonist (Memantine)
 - Anti-amyloid antibodies (Lecanemab, Donanemab)

Care Planning:

-  Involve family/caregivers in care decisions
-  Legal planning (advance directives, power of attorney)
-  Home safety assessment
-  Financial planning for long-term care

Support Resources:

- Alzheimer's Association: 800-272-3900
- Clinical trials: ClinicalTrials.gov
- Support groups for patients and caregivers

Prognosis: Early detection allows for:

- Better treatment response
- Clinical trial eligibility
- Advanced care planning
- Quality of life optimization

IMPORTANT MEDICAL DISCLAIMER:

This AI system provides **clinical decision support** and is NOT a substitute for professional medical diagnosis.

- All results must be **confirmed by a qualified healthcare professional**
- The model achieved 78.17% accuracy on validation data
- Individual patient outcomes may vary
- Consult a **licensed neurologist** for definitive diagnosis and treatment

Emergency: If experiencing severe symptoms, seek immediate medical attention.

Download Diagnostic Report

 Download Full Diagnostic Report (PDF)

 Report ready for download!