



AI Alzheimer's Diagnostic System

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

✓ VGG16 loaded

✓ Xception loaded

Model Information

Validation Accuracy

78.17%

AD Sensitivity

100%

AD Precision

50%

Ensemble Configuration

VGG16: 47.7%

Xception: 52.3%

Performance Metrics

CN Recall: 77.3%

MCI Recall: 78.3%

AD Recall: 100%

How to use:

- Upload brain MRI scan
- Click 'Run AI Diagnosis'
- Review results & advice
- Download PDF report



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.



Run AI Diagnosis



Analysis Complete!



Diagnostic Results



Original MRI



Input Scan



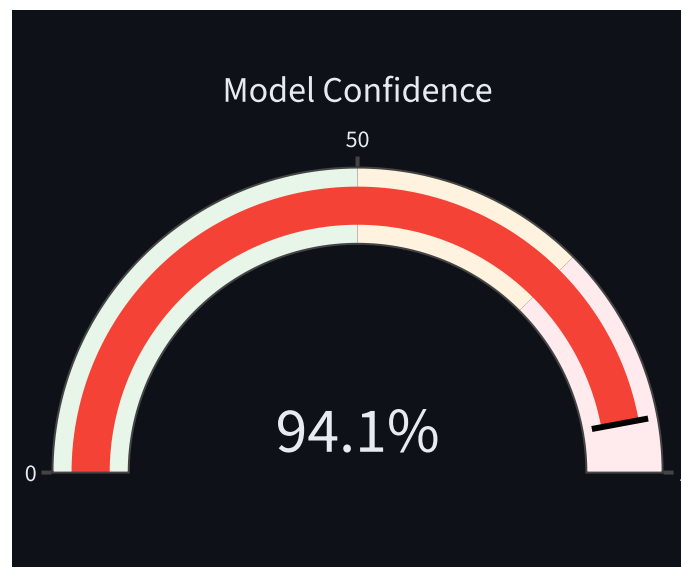
AI Attention Map (Grad-CAM)



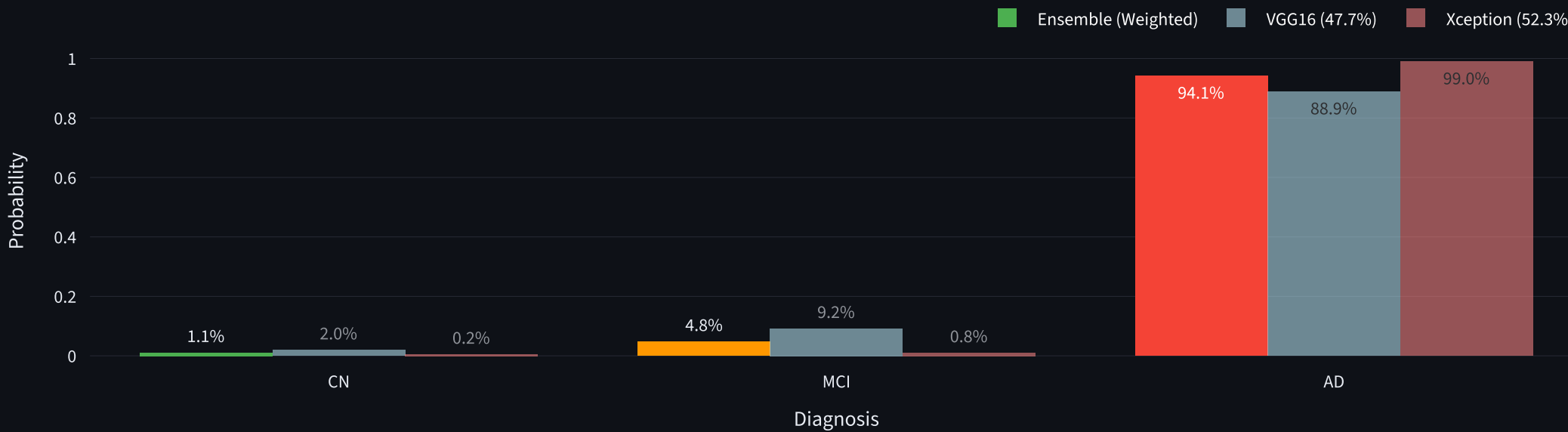
Regions influencing prediction



Model Confidence



Class Probabilities (Ensemble & Individual Models)





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!

Developed for Clinical Decision Support | Not FDA Approved
Model: VGG16 + Xception Weighted Ensemble (47.7% / 52.3%)
Performance: 78.17% Accuracy | 100% AD Sensitivity | Research Use Only