

# GMIP Project: Gnu Medical Image Processing

## AI Revolutionizing Medical Care

The GMIP Project is an innovative medical project leveraging the power of artificial intelligence (AI) to revolutionize healthcare. It begins with a focus on analyzing dental images, and will eventually expand to analyze various other medical images for accurate and automated diagnosis. This AI system aims to provide faster, more precise, and accessible medical care for everyone.



by koosha yeganeh

# Diagnosis of Dental Damage

## Dental Damage Detection

The AI scans OPG and Bitewing images and identifies areas of damage, including cavities, cracks, and other forms of dental decay.

## AI-Powered Accuracy

This system uses advanced algorithms to analyze the images and provide accurate diagnoses of dental damage, improving the efficiency of dental care.

## Early Detection & Intervention

By accurately identifying dental damage early, the GMIP project can facilitate timely treatment, preventing further complications and improving overall dental health.

# Diagnosis of Tooth Filling

1

## Filling Detection

The AI can detect the presence and location of tooth fillings, offering a comprehensive overview of a patient's dental history.

2

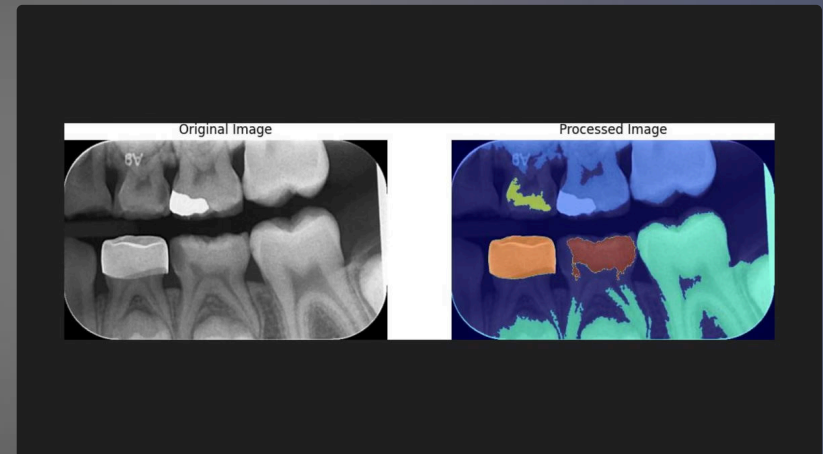
## Improved Treatment Planning

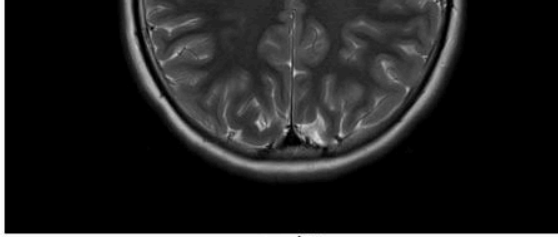
This analysis allows dentists to plan treatment more efficiently, focusing on areas that require attention and ensuring the best possible outcome.

3

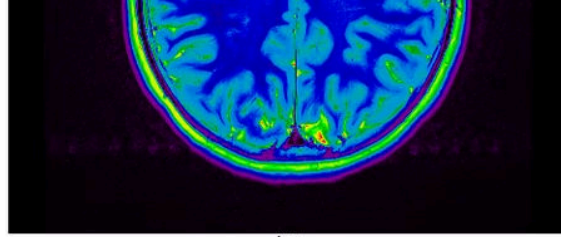
## Personalized Dental Care

By understanding a patient's individual dental history, dentists can provide personalized care and address specific needs.

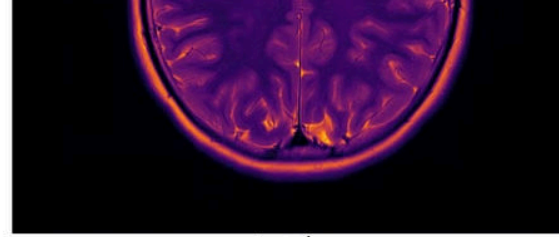




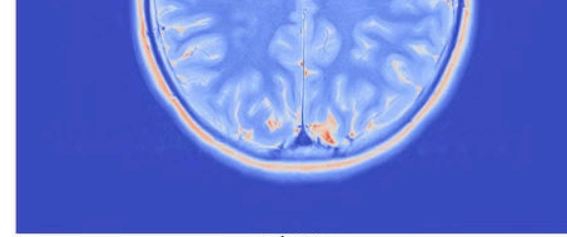
gnuplot



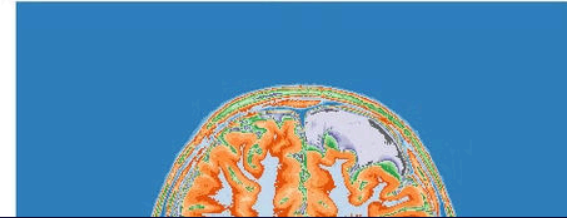
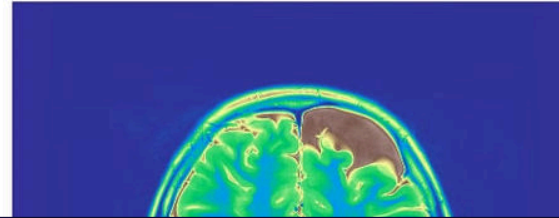
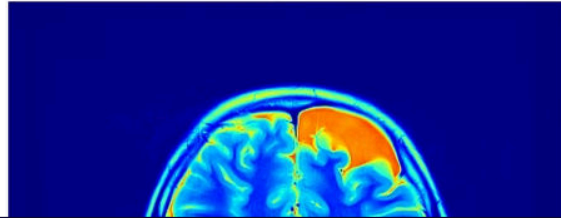
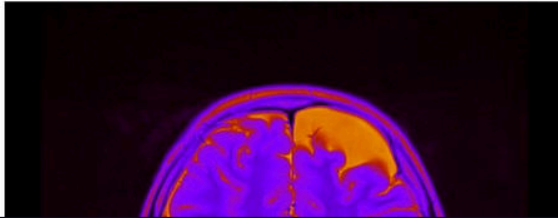
jet



terrain



tab20c



# Dicom Viewer

## Image Viewing

The GMIP project integrates a Dicom Viewer, allowing users to easily access and view dental images in a standardized format.

## Image Enhancement

The viewer offers tools for image enhancement, such as brightness and contrast adjustment, ensuring clear and detailed visualization.

## Measurement Tools

The Dicom Viewer includes measurement tools to accurately assess the size and location of dental structures and abnormalities.

# Brain Tumor Detection

1

## Tumor Identification

The system pinpoints the location, size, and type of tumor, providing valuable information for diagnosis and treatment planning.

2

## Early Detection and Intervention

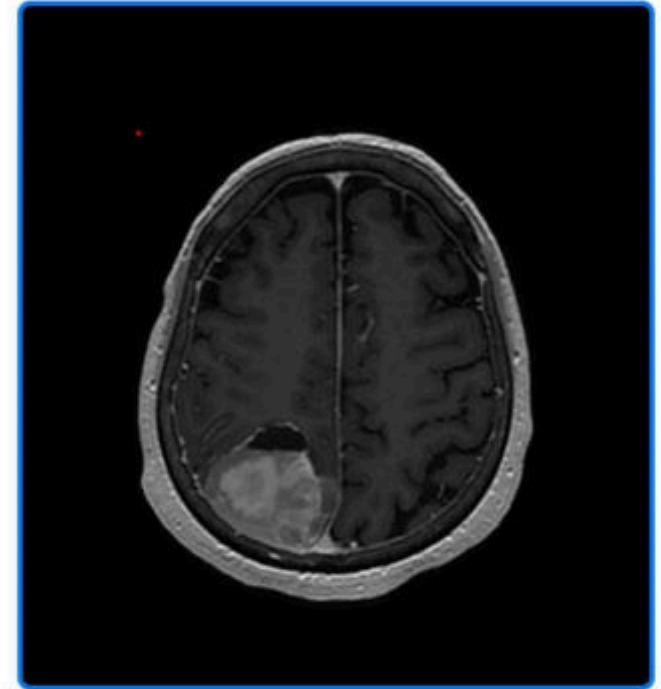
Early detection of brain tumors is crucial for successful treatment, allowing for more effective interventions and improved patient outcomes.

# Brain Tumor Detection

Size: 105.0 cm x 113.8 cm

## Information

Number of Tumors: 1



Area: 095.59 cm<sup>2</sup>

Bounding Box: Top Left: 19.4 cm, 21.3 cm; Bottom Right: 85.3 cm, 99.6 cm

Position: front left

Home





# Brain Tumor Detection

1

## Advanced Algorithms

The AI system utilizes sophisticated algorithms to analyze complex patterns in brain MRI scans.

2

## Pattern Recognition

The AI identifies subtle changes in brain structure and tissue characteristics that might indicate the presence of a tumor.

3

## Tumor Classification

The system can classify the type of tumor, providing crucial information for determining the best course of treatment.

4

## Enhanced Diagnosis

This AI-powered approach enhances the accuracy and efficiency of brain tumor diagnosis, improving patient care.

# Alzheimer's Risk Assessment

Upload your brain scan image to our AI-powered Alzheimer's risk assessment tool. This advanced analysis can detect early signs of cognitive decline, allowing you to take proactive steps for better brain health.

Our sophisticated algorithms analyze your brain scan in detail, identifying subtle patterns that may indicate an increased risk of developing Alzheimer's disease. This personalized report can empower you and your healthcare provider to develop a tailored care plan.





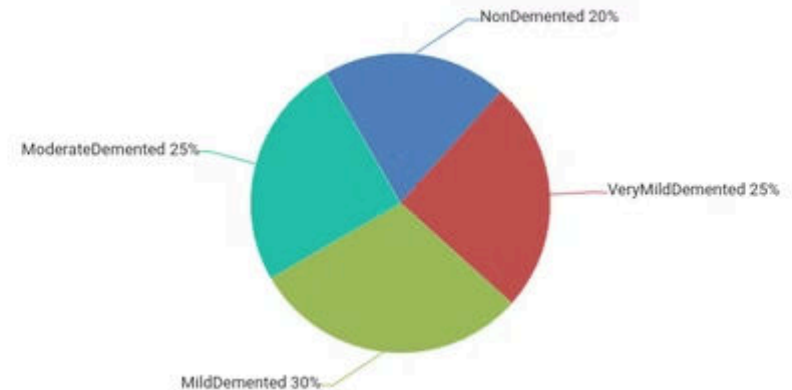
# Alzheimer Risk Report

## Alzheimer's Risk Report

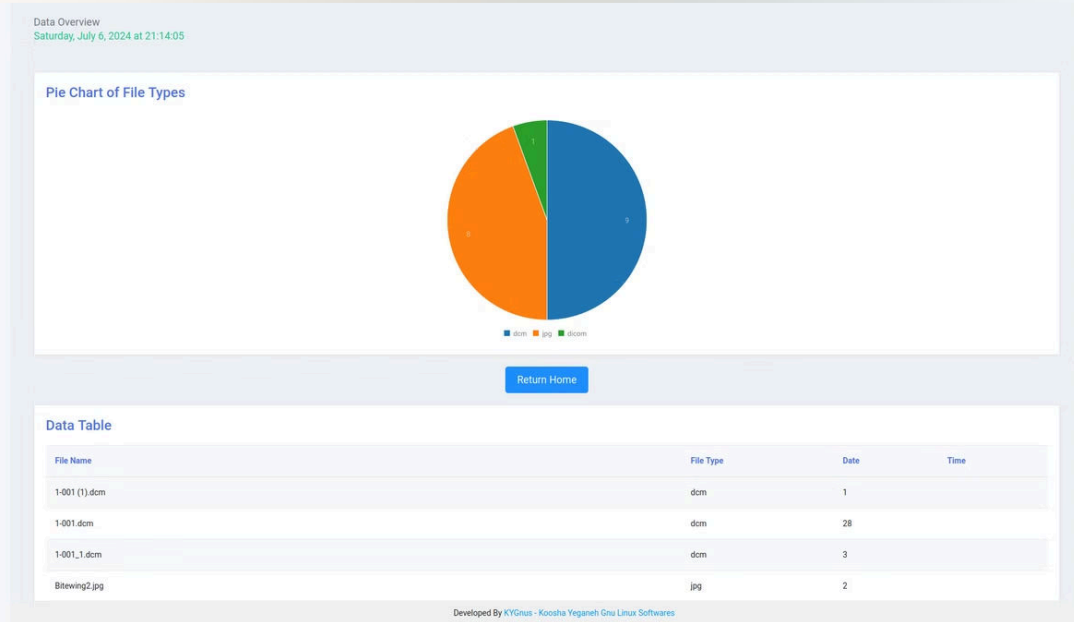
**Risk Class:** VeryMildDemented

**Risk Description:** Mild cognitive impairment. Early signs of cognitive decline. Moderate risk.

### Alzheimer's Risk Prediction



Canva.com



# Report Table

# Backup



**High Availability**

Full Backup Easily