

Alzheimer's Disease Detection

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Overview

- ❖ Business Understanding
- ❖ Data Understanding
- ❖ Modeling
- ❖ Model Evaluation
- ❖ Recommendations



Business Understanding



Problem


Alzheimer's researchers in New York Alzheimer's center are interested in **detecting Alzheimer's disease** and **finding ways to head off brain damage**.



Solution

Developing a **predictive classification model** that will **classify** a set of brain MRI Images in order to detect **Alzheimer's disease**.

Data Understanding

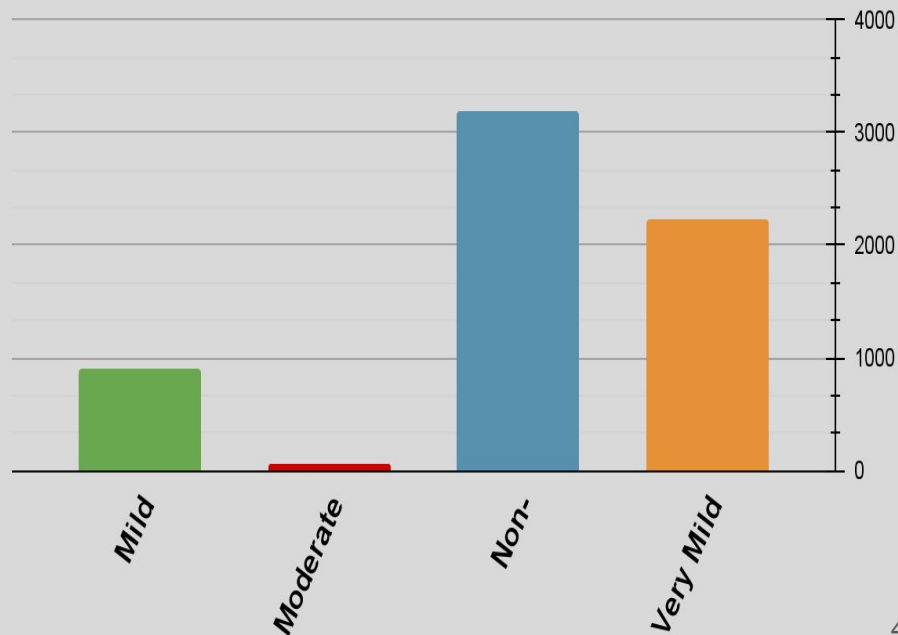
 The project is collected Alzheimer MRI dataset from Kaggle .

 Dataset consists of 6400 MRI images

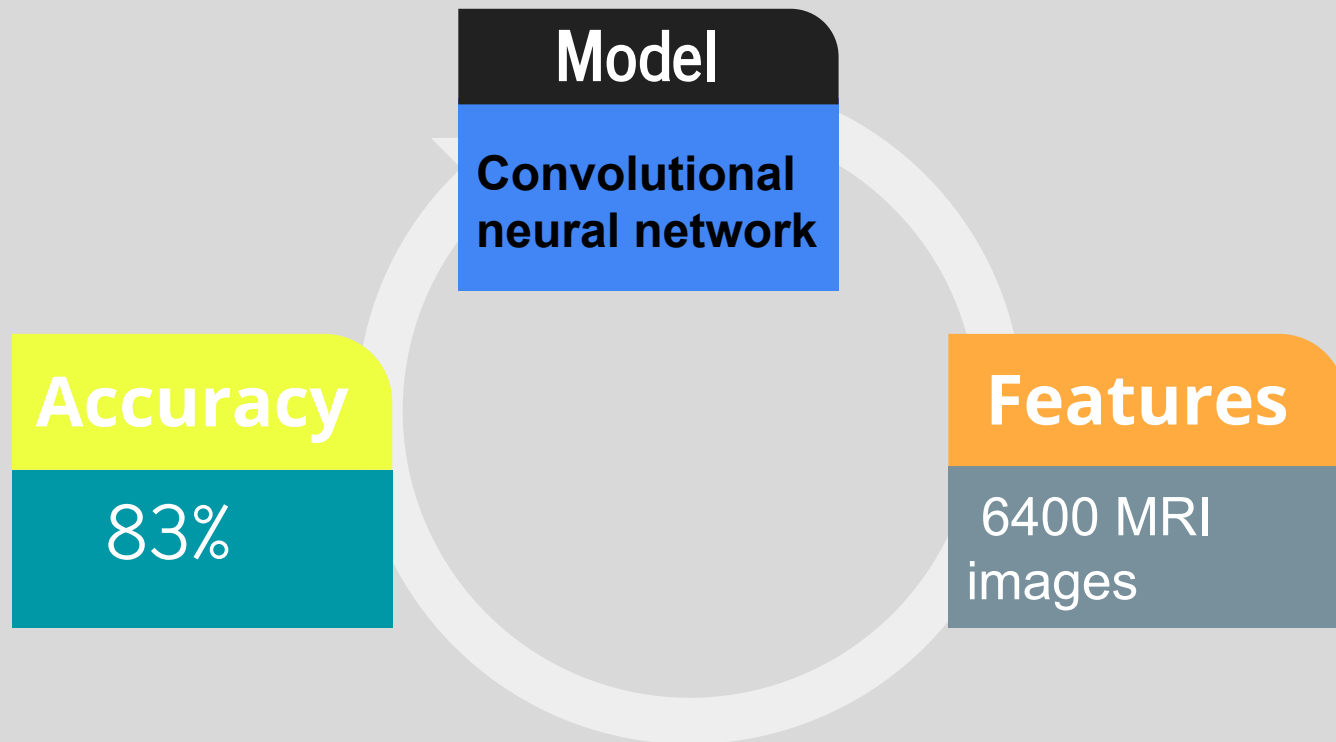
 Divided into four classes :

- 1- **Mild Demented** (896 images)
- 2- **Moderate Demented** (64 images)
- 3- **Non-Demented** (3200 images)
- 4- **Very Mild Demented** (2240 images)

Data Distributions



Modeling



Evaluation

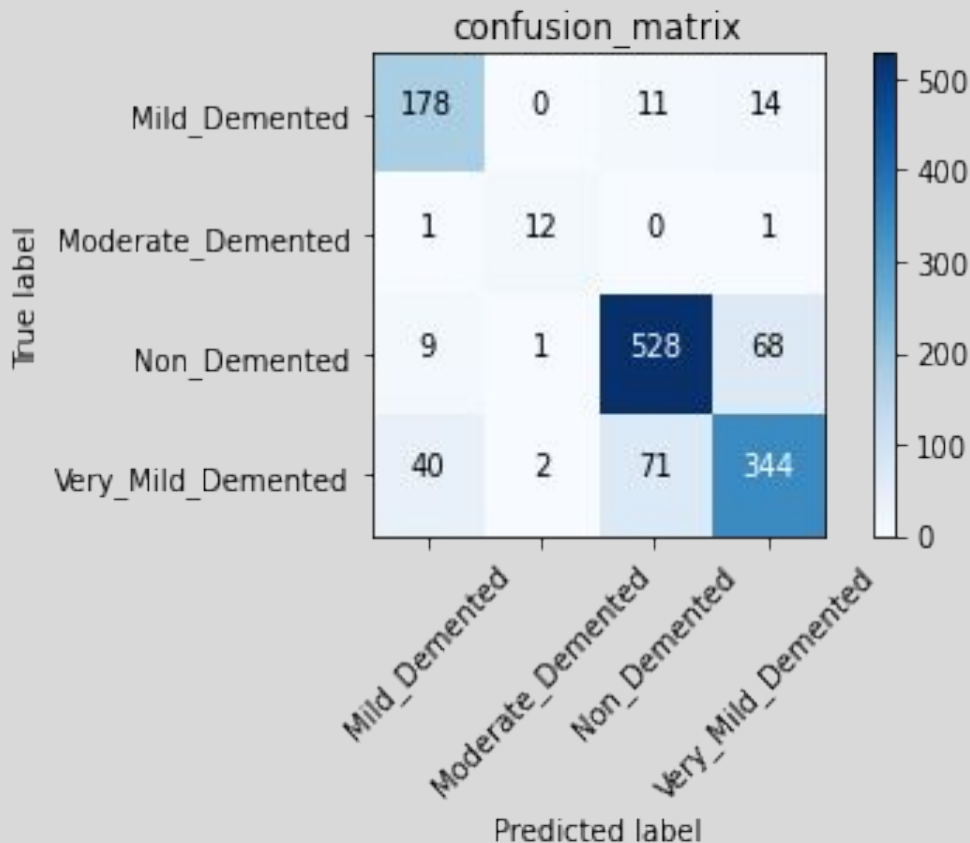
Metrics

Recall score
and **Accuracy** .

Recall




Percent of the
positive cases the
model catches

Recall average 84%





Recommendations

-  Being aware of **Alzheimer's signs and symptoms** is essential for diagnosing the disease.
-  Develop and maintain **routine procedures for checking brain health.**
-  Publishing the **new research papers**, and keeping investigating **new treatments**

THANKS!

Any questions?

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