

Alzheimer's disease prediction: Deep Learning approach

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Outline

- 1 Why Alzheimer's disease?
- 2 Deep Learning for Computer Vision
- 3 Dataset: MRI scans
- 4 Results: Accuracy Score and Loss Value
- 5 App: Streamlit
- 6 Limitations
- 7 Future directions

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 - This number is expected to reach nearly 14 million by 2060;
 - This increase will be a challenge for medical systems and professionals working in this field.
- *[https : //www.cdc.gov/aging/dementia/index.html](https://www.cdc.gov/aging/dementia/index.html)*

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Our main goal:

In the context of detecting Alzheimer's disease, these fields come together by using CNNs to classify MRI scans to predict the presence/absence of Alzheimer's disease.

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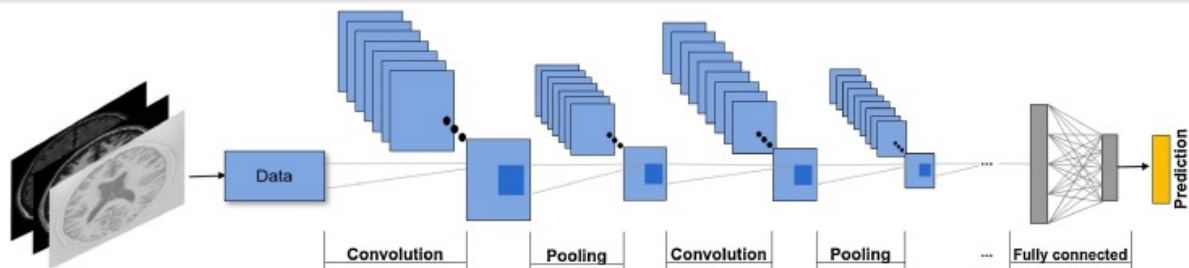


Figure 3. An architecture of CNN model

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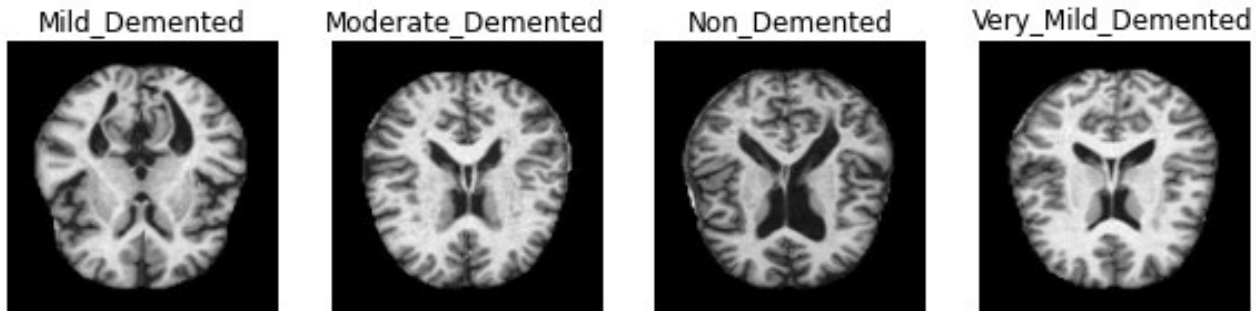
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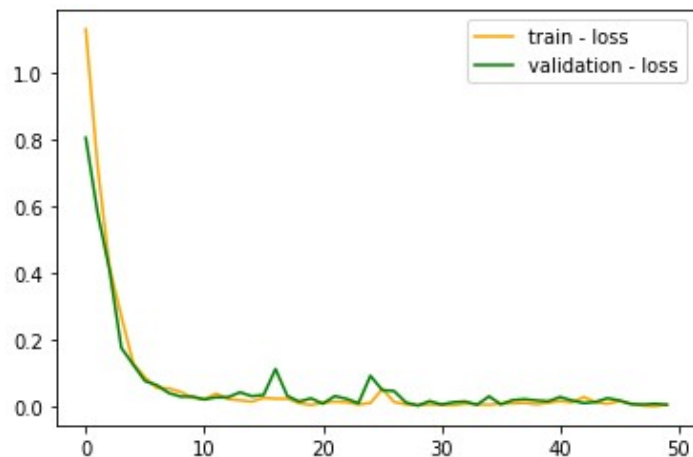
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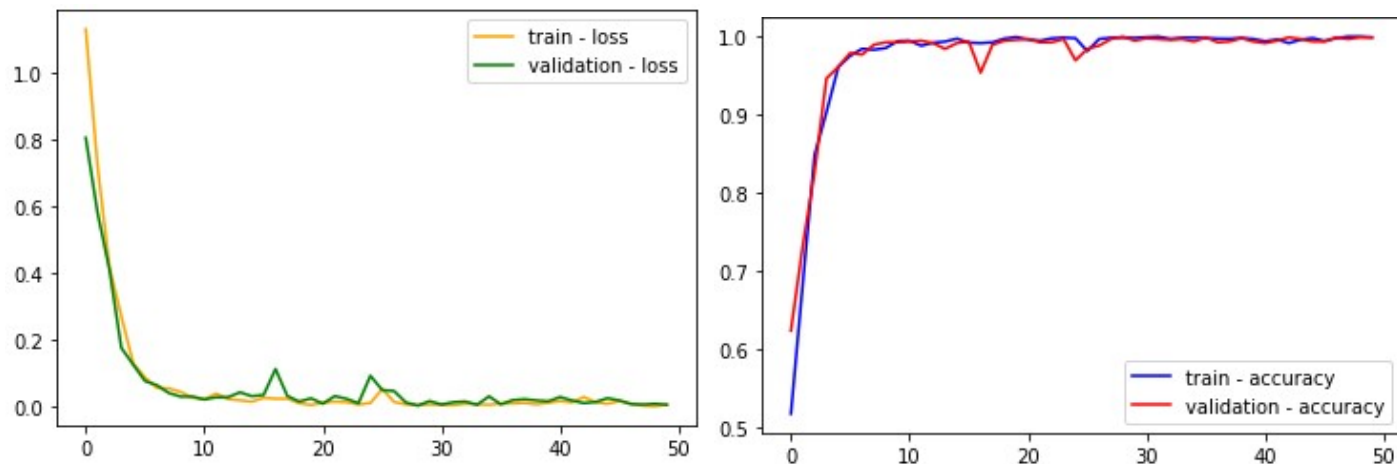


Figure 7. Loss vs Accuracy

Webb-App: Alzheimer's Disease Prediction



Brain MRI scans

Alzheimer's Disease Prediction

Predicts the diagnosis of Alzheimer's disease based on the patient's MRI image.

This application uses CNN model

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- The lack of pre-trained models specifically trained on brain MRI scans;

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- Multi-modality medical image analysis;
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- Image segmentation for medical imaging.

Thank you for your attention!