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**Paper details**

**Paper citation(APA Style):** Classification of Alzheimer’s Disease Using Convolutional Neural Networks. (2022). *International Journal of Academic Information Systems Research (IJAISR)*, *6*(3). https://philarchive.org/archive/SAMCOA-4

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**Paper’s name:** Classification of Alzheimer's Disease Using Convolutional Neural Networks

**Publisher name:** International Journal of Academic Information Systems Research (IJAISR)

**Year of publication:** March – 2022

**Dataset Used:** Alzheimer MRI Preprocessed Dataset (Kaggle)

<https://www.kaggle.com/datasets/sachinkumar413/alzheimer-mri-dataset>

**It’s results: A screenshot of a computer

Description automatically generated**

***General Information on the selected dataset:***

**Dataset Name:** Alzheimer MRI Preprocessed Dataset (Kaggle)

***Dataset URL:*** <https://www.kaggle.com/datasets/sachinkumar413/alzheimer-mri-dataset>

***No. Of samples used:*** *The dataset consists of 6400 MRI images*

***The dimension of the images:*** *128\*128*

***No. Of classes:***

*Class1: Mild Demented (896 images).*

*Class2: Moderate Demented (64 images).*

*Class3: Non Demented (3200 images).*

*Class4: Very Mild Demented (2240 images).*

***Implementation details:***

***The ratio of training and No. Of images:*** *80% (5120 images).*

***The ratio of validation and No. Of images:*** *20% (1280 images).*

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Description automatically generated with medium confidenceBlock Diagram:***

***A screenshot of a computer

Description automatically generated with medium confidence***

***Hyperparameters:***

*Activation function (Softmax, relu)*

*Optimizers:ADAM (Learning rate 1e-4)*

*Batch size: 32 batch*

*No. Of Epochs: 10 Epoch*

***Example images:***

*A picture containing text, black and white, monochrome photography, screenshot

Description automatically generated*

***Results details:***

**Training Loss & Validation Loss :**

A picture containing line, plot, text, diagram

Description automatically generated

***Training Accuracy & Validation***

*A picture containing line, plot, text, diagram

Description automatically generated*

***Confusion Matrix :*** ***A picture containing text, screenshot, diagram, parallel

Description automatically generated***

***Prediction A picture containing text, screenshot, black and white, pattern

Description automatically generated***