

DATASET USED FOR THIS PROJECT

- MEDICAL APPOINTMENT NO SHOW

Dataset has one entry of age -1 which is eliminated in this project

Two hidden layers used in both the implementation of size (7,60) and (60,1)

NEURAL NETWORK FROM SCRATCH

PACKAGES USED IN NEURAL NETWORK FROM SCRATCH

1. Numpy
2. Pandas

LOSS FUNCTION – CrossEntropyLoss

ACTIVATION FUNCTION – Sigmoid

Optimization – Standard Gradient Descent Algorithm

System – Ryzen 5 5500u with 8GB of System Ram

Configuration

1.N_iterations = 120

Layer1 = (7,256)

layer2= (256,1)

memory usage = 0.92GB

learning_rate = 0.03

time - 140sec

accuracy = 79.8%

f1_score = 0.88

roc_auc_score= 0.5

NEURAL NETWORK WITH PYTORCH

PACKAGES USED IN NEURAL NETWORK FROM SCRATCH

1. Numpy
2. Pandas
3. Torch
4. Matplotlib
5. Sklearn

LOSS FUNCTION – CrossEntropyLoss

ACTIVATION FUNCTION – Sigmoid

Optimization – Standard Gradient Descent Algorithm

N_iters = 180

layer = (7,256)

layer2= (256,1)

memory usage = 1.2GB

lr=0.001

time - 1sec on Colab T4 GPU

accuracy = 80.7%

f1_score = 0.89

roc_auc_score= 0.5