**Neural Network ICP5**

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**Github Link:** <https://github.com/RishikaMadireddy/neural_network_ICP5>

**Video link :** <https://drive.google.com/file/d/1gy22keicxRX2-MVoApnrzBcA36W0-qFC/view?usp=sharing>

Programming elements:

1. Basics of Autoencoders

2. Role of Autoencoders in unsupervised learning

3. Types of Autoencoders

4. Use case: Simple autoencoder-Reconstructing the existing image, which will contain most important features of the image

5. Use case: Stacked autoencoder

**Problem 1:**

Add one more hidden layer to autoencoder

A screenshot of a computer program

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A screenshot of a computer

Description automatically generated

**Problem 2:**

Do the prediction on the test data and then visualize one of the reconstructed version of that test data. Also, visualize the same test data before reconstruction using Matplotlib.

A screenshot of a computer program

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A close-up of a person's body

Description automatically generated

**Problem 3:**

Repeat the question 2 on the denoisening autoencoder

A screenshot of a computer program

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A screenshot of a computer

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A screenshot of a computer screen

Description automatically generated

**Problem 4:**

Plot loss and accuracy using the history object

A graph with text and numbers

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