Computer Vision – Spring 2025
BSE-F22

Assignment # 3

Assignment 3: Multiclass Classification Using Deep Neural Networks in PyTorch

Objective

Your task is to modify the "pytorch_NN.ipynb" file by implementing a custom dataset class for the SignDataset. To assist you in this process, a sample implementation is provided in "Pytorch_DatasetClass_examples.zip".

Dataset Information: The **Sign Language Dataset** can be accessed from the following link:

📌 [Sign Language Digits Dataset](#)

For a **TensorFlow implementation** of the **SignDataset** class, refer to:

📌 [SIGN Dataset](#)

Helpful Resources

For additional guidance on implementing a PyTorch dataset class, you may refer to:

📌 [Stanford CS230 Blog: Handsigns](#)

Instructions

✔ Modify the **"pytorch_NN.ipynb"** file to include a custom dataset class for **SignDataset**.

✔ Use the provided sample code as a reference while structuring your dataset class.

✔ Explore the linked resources to better understand dataset handling in PyTorch.

If you have any questions or need further clarification, feel free to ask. Good luck! 🚀