Iris Classification using Neural Networks

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Introduction

This task demonstrates a basic classification task using the Iris dataset with a neural network built in PyTorch. The workflow includes data preprocessing, model definition, training, and evaluation using a confusion matrix.

Insights on preparation

This task helped me learn the neural networks and then implement on the dataset using PyTorch. It made me visualise how the different layers work in neural networks and how to play with it to get the desired result.

Implementation

Started with loading the data and then moving forward did the following tasks:
* Standardized the dataset.
* Splitted the dataset into testing and training.
* Encoded the result matrix using One-Hot encoding.
* Formed a neural network using PyTorch, having 2 hidden layers and ReLu activation function.
* Evaluated the model using testing data.

Conclusion

This task successfully demonstrates multi-class classification using a neural network in PyTorch. The use of one-hot encoding, DataLoader batching, and evaluation metrics such as confusion matrix helps reinforce key deep learning concepts in practice.