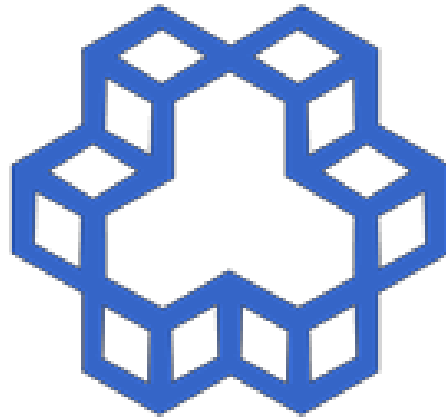


In the name of God

Diagnosis of Patients with Fatty Liver



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Solving the Exercise:

Ghaffar

Ghorbani

*Seeking help from friends and solving the exercise is allowed, but any copying of the code and other results will be considered as **a zero** mark.

classification using multilayer neural networks

Project for the Diagnosis of Patients with Fatty Liver (MLP Binary classification/D)

In this project, different parts are coded, and you have to create a multi-layered neural network model to diagnose people with this disease.

- Challenge 1: Gain an overview of the given characteristics and make a prediction of which features may have the greatest impact on the output.
- Challenge 2: Perform a data processing and examine instances that have a property with a value of zero.) For example, zero blood pressure in a sample has no meaning and should be followed by conventional methods of data cleaning.
- Challenge 3: Divide the data into test and training data in a reasonable proportion and then standardize the data using the standardscaler model.
- Challenge 4: Build a deep neural network model using your favorite modules

Design the required with the hyperparameter broker and (Tensroflow/keras, pytorch). Self-Regulation

Challenge 5: Train your model and evaluate it using the usual methods. confusion and visualize the output of the work (matrix, acc/loss plots)

- Challenge 6: Examine your trained model in prediction. (i.e., refer a test input to this function and compare the output of the model with the actual output.)
- Challenge 7: The accuracy of the model may not reach 100% and this means that a number of patients may be mistakenly healthy. False positives (and false negatives), which of these two things do you think will lead to worse events?
- Challenge 8: To learn about any library, it is better to refer to its documents in the first place. please

Early stop, callbacks API, and about two <https://keras.io/api> visit the site. Learn about ModelCheckpoint