Checkpoint 1

* Dataset: I am using a csv dataset of approximately 300 instances with 13 features that represent diagnostics that can be used to predict heart failure, which includes Age, Sex, exercise induced angina, number of major vessels (0-3), Chest Pain type resting blood pressure (in mm Hg), cholesterol in mg/dl, fasting blood sugar > 120 mg/dl (1 = true; 0 = false), resting electrocardiographic results, maximum heart rate achieved [Heart Attack Analysis & Prediction Dataset (kaggle.com)](https://www.kaggle.com/datasets/rashikrahmanpritom/heart-attack-analysis-prediction-dataset/data)
* I have a DNN that is functioning with an accuracy of 85-89%% compared to the papers 91% accuracy using a CNN on a similar dataset. I made sure that I used a similar structure of 4 128 neuron layers, 4 64 neuron layers and a final layer using a sigmoid activation despite not being able to use a CNN.
* Instead of manually normalizing the features like in our ICE, I used standard Scaler from sklearn to normalize each feature to have a mean of 0 and standard deviation of 1, so that every feature is scaled to similar values as well as similarly distributed.
* I had some issues with variable accuracies when using only 5 epochs, so I used 100 epochs like in the paper to get more stable accuracy matrix outputs. However, that also results in a range of accuracies, but it is less variable.
* My second biggest difference between the paper’s baseline is that I have a single dropout layer of 3% instead of a consistent dropout rate.