**NEURAL NETWORK DEEP LEARNING**

**ICP 6**

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**GitHub:**

Repository URL for the source code :

https://github.com/SAIHB/icp6

**1. Use the use case in the class: a. Add more Dense layers to the existing code and check how the accuracy changes.**

**2. Change the data source to Breast Cancer dataset \* available in the source code folder and make required changes. Report accuracy of the model.**

**3. Normalize the data before feeding the data to the model and check how the normalization change your accuracy (code given below). from sklearn.preprocessing import StandardScaler sc = StandardScaler() Breast Cancer dataset is designated to predict if a patient has Malignant (M) or Benign = B cancer**

A computer code with text

Description automatically generated

**Output:**

A screenshot of a computer

Description automatically generated

Accuracy is changed to 0.5833.

A computer code with text

Description automatically generated with medium confidence

A screenshot of a computer

Description automatically generated

Accuracy for the breast cancer is 0.8881.

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A screenshot of a computer

Description automatically generated

**Training the model and recording the training history:**

A screenshot of a computer code

Description automatically generated

A graph of loss and loss

Description automatically generated

**Making a prediction on the image using the trained model:**A computer screen shot of a program code

Description automatically generated

A black and white image of a triangle

Description automatically generated

**Training each model an ploting loss and accuracy curves with 2 hidden layers**:A computer screen shot of a program

Description automatically generated

A graph of a graph

Description automatically generated with medium confidence

A graph with numbers and lines

Description automatically generated with medium confidence

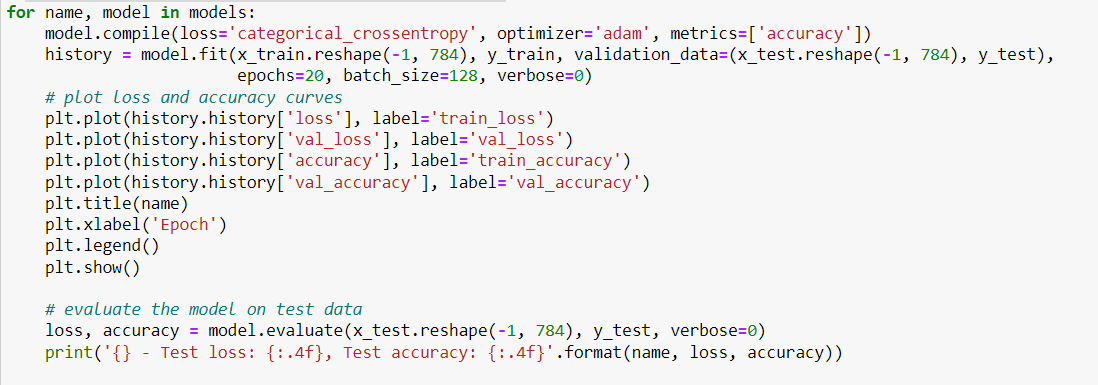
A graph of a number of people

Description automatically generated with medium confidence

A graph with text and numbers

Description automatically generated with medium confidence

**Training each model and plot loss and accuracy curves:**

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**A graph with numbers and lines

Description automatically generated with medium confidence**

**A graph of a graph

Description automatically generated with medium confidence**

**A graph of a number of layers

Description automatically generated with medium confidence**

**A graph of loss of a train

Description automatically generated with medium confidence**