UDACITY

PROJECT SPECIFICATION

Your first neural network

Code Functionality

CRITERIA	MEETS SPECIFICATIONS
All code works appropriately	All the code in the notebook runs in Python 3 without failing.
Sigmoid activation function	The sigmoid activation function is implemented correctly
Unit tests	All unit tests must be passing

Forward Pass

CRITERIA	MEETS SPECIFICATIONS
Hidden layer input	The input to the hidden layer is implemented correctly in both the train and run methods.
Hidden layer output	The output of the hidden layer is implemented correctly in both the `train` and `run` methods.
Output layer input	The input to the output layer is implemented correctly in both the train and run methods.
Network output	The output of the network is implemented correctly in both the train and run methods.

Backward Pass

CRITERIA	MEETS SPECIFICATIONS
Output error	The network output error is implemented correctly
Backpropagated error	The error propagated back to the hidden layer is implemented correctly
Updating the weights	Updates to both the weights are implemented correctly.

CRITERIA	MEETS SPECIFICATIONS
Hidden layer gradient	Hidden layer gradient(hidden_grad) is calculated correctly.

Hyperparameters

CRITERIA	MEETS SPECIFICATIONS
Number of epochs	The number of epochs is chosen such the network is trained well enough to accurately make predictions but is not overfitting to the training data.
Number of hidden units	The number of hidden units is chosen such that the network is able to accurately predict the number of bike riders, is able to generalize, and is not overfitting.
Learning rate	The learning rate is chosen such that the network successfully converges, but is still time efficient.

Student FAQ